

**Annual Report  
of the  
South African Chemical Institute**

2nd August 2018 to 15th August 2019



**THE SOUTH AFRICAN  
CHEMICAL INSTITUTE**

## **COUNCIL**

### **Office Bearers**

President  
Vice President  
Immediate Past President  
Executive Secretary  
Executive Treasurer  
Co-opted Member  
Co-opted Member  
Co-opted Member  
SACI Student Representative

Prof V Nyamori  
Prof P Mallon  
Prof B Martincigh  
Prof Z Tshentu  
Dr I Bratt  
Dr M Booth  
Prof N Coville  
Prof H Marques  
Ms K Mugadza

### **Reporting Officers**

Publications Officer  
Publicity  
Webmaster  
IUPAC  
SACNASP  
ACS

Prof Tricia Naicker  
Prof B Martincigh  
Mrs L Smith  
Prof J Darkwa  
Prof E Breet  
Prof C de Koning

### **Chairpersons of Sections**

Eastern Cape  
SACI North  
SACI Central  
Kwazulu-Natal  
Western Cape

Dr R Krause  
Dr R Mampa  
Dr A Lemmerer  
Prof B Owaga  
Prof N Báthori

### **Chairpersons of Divisions**

Analytical Chemistry  
Chemical Education  
Chromatography (ChromSA)  
Electrochemistry  
Environmental Chemistry  
Mass Spectrometry (SAAMS)  
Industrial Chemistry  
Inorganic Chemistry  
Molecular Modelling  
Organic Chemistry  
Physical Chemistry  
Green Chemistry  
ThermSA

Prof N Nindi  
Prof H Drummond  
Prof P Forbes  
Prof O Arotiba  
Prof OJ Okonkwo  
Mr B Naicker  
Dr M Booth  
Prof TJ Egan  
Dr C van Sittert  
Dr C Veale  
  
Dr R Klein  
Dr L van der Merwe

## **OFFICE BEARERS**



Prof V Nyamori  
President



Prof P Mallon  
Vice-President



Prof B Martincigh  
Immediate Past- President



Dr M Booth  
Co-opted Member



Prof N Coville  
Co-opted Member



Prof H Marques  
Co-opted Member



Prof Z Tshentu  
Executive Secretary



Dr I Bratt  
Executive Treasurer

## **MEETINGS**

Council meetings were held on:

2<sup>nd</sup> August 2018 (AGM)

Executive Committee meetings were held on:

2<sup>nd</sup> August 2018 (AGM), 27<sup>th</sup> September 2018, 22<sup>nd</sup> October 2018, 7<sup>th</sup> February 2019, 23<sup>rd</sup> May 2019 and 7<sup>th</sup> August 2019

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## **PRESIDENT'S REPORT**

In a blink, my term of office as SACI President has remarkably and quickly come to its end. I have truly enjoyed performing my roles and duties, as I proudly and thoroughly appreciated working for the Institute. Through, the SACI Executive, Council and all the SACI Committee members, collectively, we have achieved significant milestones. Hence, my tenure in office has been a comfortable journey of which I sincerely appreciate the support provided to me, by each and every person on the various committees or SACI portfolio structures. In addition, the notable achievements would not have been realized without the involvement and participation of all the active SACI members who kindly gave of their time and effort for various roles in the many SACI events. Remember, also, just being a member is a contribution to the Institute and for which we are duly grateful and hopefully with time we will all have an opportunity to participate in some role or leadership within the Institute structures.

Over the past few years, we have been recognized by the South African Qualifications Authority (SAQA) as a Professional Body who can now register professional chemists with the designation PrChemSA. We have also reviewed our SACI conference events, including the SACI National Convention, which now occurs after every three years. This change was pre-empted by the increasing difficulty to raise sponsorship funds for conferences coupled with the low conference attendance due to the challenges of rising costs of events and lack of research funding. Recently, we also restructured our membership fee, in particular, we introduced a three-year membership plan, which should be an aid for the sustainability and planning of the institute. Also, we have freshly renewed our international links with the Royal Society of Chemistry (RSC) while still working on the revival of our alliance with the American Chemical Society (ACS). Notably, we still have strong links with the European Federation for Medicinal Chemistry and Federation of African Societies of Chemistry (FASC), which are beneficial for SACI and its members. Our latest involvement includes our participation in the establishment of the Federation of Commonwealth Chemical Sciences Societies (FCCSS) through the RSC. Also, we are actively involved with the upcoming (May 2020) FCCSS Congress which will take place at the University of the West Indies in Trinidad and Tobago. This will be the first Congress, and we are actively and proudly part of the Local Organizing Committee.

SACI, through Professor Peter Mallon, as SACI Vice-President, was fortunate to be able to attend and represent South Africa at the recently concluded 50<sup>th</sup> IUPAC General Assembly, which took place in July 2019, in Paris, France. Apart from exercising our full vote on a number of crucial matters, Prof Mallon signed the mutual Joint Framework Agreement on the 17 Sustainable Development Goals, defined by the United Nations. Also, the preparations for the forthcoming 26<sup>th</sup> IUPAC International Conference on Chemistry Education (ICCE2020) in Cape Town, in 2020, are still on schedule and the event is being chaired by Professor Bette Davidowitz from the University of Cape Town (UCT). We believe this will be a very successful event and has the full support of SACI.

The financial situation of SACI is sound, especially from the membership support, although we could further improve on our investments. The current global economy has not been favorable and the downturn in the economy has meant that our interest-bearing accounts have not performed as well as in the past, but overall, all is well.

In closing, I would like to thank the SACI Executive and all the Council Committee

members, most sincerely for their invaluable and continual support and advice. Over the past year, we have had changes in the leadership, and committee membership, in some of our Sections and Divisions. Hence, I would like to sincerely thank all those members who have come forward, and those that stepped down, for willingly giving of their time and effort to drive the various SACI structures forward. Your dear devotion to the sustainability of the Institute is highly appreciated and it will continue to ensure the well-being and prosperity of the Institute. Also, I wish to thank the Secretariat, Laila Smith, for her excellent administration and proficiency in running the SACI Office. Finally yet importantly, a big Thank You to every SACI member, your patronage is treasured by the Institute. I am sure and happy, with confidence and excitement, that I trust the new SACI leadership will provide an exceptional service and together we will continue to grow and move forward!

Once again, thanks very much.

Best wishes,



**Prof Vincent O. Nyamori**  
**SACI President (2017/19)**

**AWARDS 2018**  
**2019 awards will be announced at the AGM**

**THE GOLD MEDAL**

The award, a gold-plated medal bearing the Institute's name and crest on the obverse and name of the medal and the recipient and date on the reverse, is made to a person whose scientific contribution in the field of chemistry or chemical technology is adjudged to be of outstanding merit.

**Prof Kelly Chibale**  
**University of Cape Town**

**THE MERCK MEDAL**

The medal is awarded to the senior author of the paper, or papers, published in the South African Journal of Chemistry in a specific field of chemistry, adjudged to have made the most significant contributions to the discipline. The award for 2018, covering papers published in the period 2012 to 2017, was the most cited (without self-citation) SA authored paper in the field of Chemistry.

**Mombeshora, Edwin T.; Simoyi, Reuben; Nyamori, Vincent O.; Ndungu, Patrick G.\***  
***S. Afr. J. Chem.*, 2015, 68, 153-164**

## **Multiwalled Carbon Nanotube-titania Nanocomposites: Understanding Nano-Structural Parameters and Functionality in Dye-sensitized Solar Cells**

### **THE SACI POST-GRADUATE AWARDS**

The awards shall be made to student members of the Institute engaged in research towards a MSc or PhD degree and registered in a School/Department of Chemistry at a South African University, or a MTech or DTech degree registered in a School/Department of Chemistry at a South African University of Technology. The number of medals awarded shall not exceed five per annum, and the awards are limited to one per institution. Past SACI/Sasol Postgraduate Awardees are not eligible for nomination for a second award of the medal. The recipients of the award shall be known as The SACI Postgraduate Awardees.

- **Edwin Mombeshora - UKZN**
- **Somandla Ncube - Wits**
- **Shakeela Sayed - UCT**
- **Alet van der Westhuyzen from US**

### **THE CHEMICAL EDUCATION MEDAL**

The award is made to a person who has made an outstanding contribution to chemical education as judged by the person's published work in the previous 5 years. Published work may be in any form and may be related to any level or educational context.

**Dr Kgadi Mathabathe**

**University of Pretoria**

### **THE JAMES MOIR MEDALS**

Medals shall be awarded to the best 2016 to the best fourth year student in chemistry at each University and University of Technology. To be eligible for the award the student must have achieved a minimum average final pass mark of 75%.

<b>Awardees</b>	<b>University</b>
<b>SL Bewana</b>	<b>University of Johannesburg, Auckland Park</b>
<b>L Parrott</b>	<b>University of the Free State</b>
<b>S Jama</b>	<b>University of Fort Hare</b>

<b>Z Nqakala</b>	<b>University of the Western Cape</b>
<b>T Sithuba</b>	<b>University of Venda</b>
<b>A Welsh</b>	<b>University of Cape Town</b>
<b>JJ Moser</b>	<b>CPUT</b>
<b>JL Slabbert</b>	<b>Nelson Mandela University</b>
<b>F Jagot</b>	<b>Wits University</b>
<b>AL Henning</b>	<b>North West University</b>
<b>VL Porter</b>	<b>University of Pretoria</b>
<b>T Naidoo</b>	<b>University of KwaZulu-Natal</b>
<b>U Ndagano</b>	<b>Rhodes University</b>

### **THE RAIKES MEDAL**

The award shall be made to a person, under the age of 40 on 31 March in the year of the award, whose original chemical research shows outstanding promise, as judged by the person's publications in reputable journals. It is further stipulated that the research shall have been performed in South Africa.

**No nomination**

### **MEMBERSHIP REPORT**

#### **1. General membership**

It is noted that there is a slight increase in membership in 2019 compared with previous years but it is not that significant. There is a notable rise in paying student membership probably due to conferences. The total membership for 2018/2019 sits at 1109 members. The trend for membership is as follows; 967 (2016), 1050 (2017) and 1037 (2018).

	<b>Apr-16</b>	<b>17-Apr</b>	<b>Apr-18</b>	<b>Apr-19</b>	<b>Total paying</b>	<b>903</b>
Members	370	362	384	388		
RPL Member			3	0		
Retired Members	11	14	14	15		
Associate Members Old	70	94	47	33		
Associate Members New			27	47		
Married Associates	2	2	2	2		
Students(Paying)	227	255	304	348		
Patron Members	3	3	3	2		
Company members	5	7	6	6		
Post Doc	27	44	63	62		
<b>Non-Paying</b>						
Honorary Members	19	19	17	17	<b>Total Non Paying</b>	<b>206</b>
Life Members(50YR Members)	99	98	100	104		
Students Honours(non Paying)	64	71	6	15		
Teachers	32	36	36	35		
Under Graduate Students	23	27	28	35		
<b>PrChemSA Total approved (95)</b>		41	85	81		
<b>Fellows Total approved (26)</b>	15	21	24	26		



## 2. Patron and Company members

We had the following patron and company members in 2018/2019. We are in the process of looking for new contacts at Coca Cola (SA) as we have lost previous contacts who honoured the membership fees. We have over the past two years lost SMM Instruments (Pty) Ltd.

### Patron Member

Merck (Pty) Ltd SA

Bruker South Africa (Pty) Ltd

### Company Members

PerkinElmer South Africa

Separation Scientific SA (Pty) Ltd

Microsep (Pty) Ltd

Anton Paar Southern Africa

Consol Glass Pty Ltd

Wildlife Pharmaceuticals (Pty) Ltd

## 3. Divisional and Section membership 2019

Divisions		Sections	
Analytical Chemistry Division	535	Western Cape	179
Chemical Education Division	149	Kwazulu Natal	150
Chromatography Division	177	North	245
ThermSA	73	Central	507
Environmental Division	298	Eastern Cape	79
Industrial Chemistry Division	288	International Members	66
Inorganic Chemistry Division	285		
Organic Chemistry Division	413		
Electrochemistry Division	97		
Green Chemistry Division	205		
Physical Chemistry Division	216		
Molecular Modelling Division	29		
Mass Spectrometry Division	156		

#### 4. New initiatives

- (a) Polymer Division – Percy Hlangothi (NMU) is driving the initiative.  
(b) Southern African Society of Rheology (SASOR) is exploring a possibility of becoming a division of SACI – Dave Perrett (ALS) is leading the initiative.

#### 5. Fellows of SACI for 2019

Nominee	CM 1	CM 2	CM 3	CM 4	CM 5	CM 6	Total votes
Ray Haines	Yes	Yes	Yes	Yes	Yes	-	5
Siegfried Drewes	Yes	Yes	Yes	Yes	Yes	-	5
Tim Egan	Yes	Yes	Yes	Yes	Yes	-	5
Susan Bourne	Yes	Yes	Yes	Yes	Yes	-	5
George Carr	Yes	Yes	Yes	Yes	Refrained	-	4

CM = Committee Member, - means no response

#### 6. Life membership for 2019

Membership number	Member	Join Date	Years of membership	Age in 2019	Section
36568	Lotter, Dr LH	1984/07/23	35	70	Central
35309	Hahn, Dr HH	1984/02/28	35	88	North
37514	Britton, Mr MTS	1984/11/19	35	71	North
53636	Hofmeyr, Mr JM	1971/01/18	48	70	Central

#### 7. Membership information for 2019

##### Types of membership:

1. Member (R860.00)
2. Associate Member (R860.00)
3. Retired Member (R220.00)
4. Patron Member (R15 750.00)
5. Company Member (R7 850.00)
6. Student Member - Undergraduate Chemistry Student (Free membership)
7. Student Member - Honours/BTech (Free membership)
8. Student Member - MSc/PhD/MTech/DTech (R160.00)
9. Post-Doctoral Member (R220.00)
10. Secondary School - Chemistry Teacher (Free membership)
11. Life Membership (Free membership, must have been a member of the institute for 35 or more years and be over 70 years of age).
12. SACI Fellow Membership (by prestigious appointment of a full SACI member in good standing with the Institute. One must have been a member of the Institute for at least ten years. In addition, they must have demonstrated excellence and leadership in the areas of both: (a) the profession, education and/or management of chemistry, and (b) volunteer service to the chemical community.
13. Professional Chemist (PrChemSA) (R400 joining fee and R250 annual fee). NB: In order to be accepted as a Professional Chemist one must apply and be accepted as a SACI member and maintain the SACI membership.

## **Regulations Governing Admission:**

### **1. Member**

The Council may admit as a Member:

A person who has completed a four-year course in any branch of chemistry and has been granted a degree, diploma or certificate of an approved examining body, and (except in special cases) who has been engaged in full-time chemical work or further study in chemistry for at least three years; in exceptional circumstances, any person whose position and experience in chemistry justifies such admission.

### **2. Associate Member**

The Council may admit as an Associate member:

A person regardless of qualification and experience, who is passionate about chemistry.

### **3. Patron and Company Members**

Any company having interests in chemistry and chemical technology is eligible for election as a Patron or as a Company Member. Patron members can get up to 10 members within their company to get SACI benefits and discounts for registration at SACI conferences and conventions. Patron Companies get a 15% discount on exhibition space at SACI conferences and conventions, and free advertising in SACI newsletter and website. Company members can get up to 5 members within their company to get SACI benefits and discounts for registration at SACI conferences and conventions. Companies get a 10% discount to exhibit at SACI conferences and conventions, and free advertising in SACI newsletter and website.

### **4. Students in Training**

*Bona fide* students studying with the objective of qualifying for the practice of Chemistry, and being not less than 17 years old, may be admitted as student Members and shall be allowed reduced subscriptions.

5. Free membership to undergraduate and honours students registered at Chemistry department of Institutions – proof of registration will be required on the application form

## **Method of application:**

Complete the on-line application form at [http://www.saci.co.za/apply\\_for\\_membership.html](http://www.saci.co.za/apply_for_membership.html).

Note particularly the need to identify three referees, at least one of whom is a Member of the SA Chemical Institute. Make sure you have filled in an email address.

Obtain documentary evidence (e.g. official letters, degrees or diploma certificates, or certified copies of these) of your experience and qualifications and attach it to the online application.

Once the application has been processed and approved you will receive an invoice from Head Office with banking details.

When payment is made please use your membership number as reference. The annual subscription year runs from 1st July to 30th June each year. The subscription of members admitted between 1st January and 30th June is reduced by one-half.

## **8. Benefits of Belonging to SACI**

1. SACI is the only body in South Africa which is concerned solely with the promotion of the interests of chemistry and chemists. This involves representation on SACNASP, NSTF/SETAG, CHIETA and other government and non-government organizations.

2. SACI has both a geographical (in terms of Sections, namely Central (Gauteng, North-West and Free State), North (Limpopo and Mpumalanga), Western Cape, Eastern Cape and KwaZulu-Natal) and a discipline-based structure. The thirteen Divisions include Analytical, Environmental, Industrial, Inorganic, Organic and Physical chemistry, Molecular modelling, Electrochemistry, Chemical education, Green chemistry, ThermSA, ChromSA and SAAMS.
3. Membership is open to all those with qualifications in chemistry or have an interest in chemistry.
4. SACI holds a Convention every three years. Many of the Divisions also hold regular biennial specialist conferences.
5. Reduced registration fees apply for SACI members to SACI-sponsored conferences and workshops.
6. Membership of SACI entitles chemists to join IUPAC, and enjoy access to IUPAC publications and services.
7. SACI publishes an electronic research journal, the South African Journal of Chemistry, which is Open-Access and part of the Scielo platform. It is indexed by Chemical Abstracts Service (CAS), Current Web Contents, Chemistry Citation Index, Index to Scientific Reviews and Speleological Abstracts. It is accredited by DHET.
8. SACI makes annual awards recognizing outstanding achievements by chemists.
9. SACI fosters and encourages student participation in events of interest to chemists, such as Young Chemists' Events, research colloquia, postgraduate symposia, etc.
10. SACI publishes a monthly newsletter, which reports news and events of interest to chemists.
11. SACI has links with other related institutions and associations, for example the South African Institution of Chemical Engineers, the Chemical and Allied Industries Association, American Chemical Society (ACS), Royal Society of Chemistry (RSC) and the European Federation for Medicinal Chemistry (EFMC).
12. Membership of SACI gives benefits when attending RSC events.
14. SACI carries out an annual salary survey.
15. Access to SACI webpages is by membership only. Non-members have limited access.

**Prof. Zenixole Tshentu**  
**Executive Secretary**

## **PROGRAMME COMMITTEE**

The main event for the current reporting period was the **43rd SACI National Convention** in Pretoria from 2-7 December of last year. This was the first national convention to take place in the new threeyear cycle of National Conventions. The conference attracted a total of **324 delegates** over the period of five days. These delegates came from **fifteen different countries**, including Canada, United States, United Kingdom, Germany, Russia, South Africa, Lesotho, Botswana, Zimbabwe, Swatini, Kenya, Tanzania, Nigeria, Ghana, Democratic Republic of Congo, Uganda, Malawi, amongst others. What is particularly pleasing is that **174** of the delegates were **postgraduate students**. Even more pleasing is that **women** constituted more than **56%** of the total delegates. More than 100 talks and 144 posters were presented during the conference. **Prof Fraser Stoddart** (2016 Nobel Prize winner) gave the opening plenary lecture. The National Convention also presented an opportunity for several of the SACI award winners to deliver their award lectures. This included two **SACI Gold Medal Lectures** (Prof Harald Pasch medal winner in 2018 and Prof Kelly Chibale medal winner in 2018). The 2016 and 2017 **Raikes Award Lectures** were presented by Prof Danelia Bezuidenhout and Prof Zeni Tshentu respectively and the winners of the **SACI Chemical Education Medal** in 2016 and 2017 were presented by Prof Helen Dummond and Dr Lesley Pilcher respectively. This was the first trial run of including all of the SACI divisions in the national convention programme and despite some hiccups with this, the experiences and lessons learnt will be invaluable to the organising committee of the next national convention. A very special word of thanks needs to go to **Richard Mampa** and his team from the Northern Section for organising this very successful national convention.

It now falls to the Western Cape Section to plan and organise the **44th National Convention of SACI in 2021**. **Prof Catharine Esterhuysen** (Stellenbosch University) has agreed to act as the conference chair and we wish her and her team well as they take on this very important task. I hope that we will see many SACI members joining the national convention in the Western Cape towards the end of 2021!



Delegates the 43<sup>rd</sup> National Convention at the CSIR in Pretoria

The **Analitika 2018** conference took place at the Legend Golf and Safari Resort in the Limpopo Province from 22 -25 July 2018. In total, 175 local and foreign delegates attending the meeting took place in a beautiful location! The plenary talks at the 2018 conference were presented by Prof

Graham Cooks (Purdue University), Prof Gary Hieftje (Indiana University), Prof Charlotta Turner (Lund University) and Prof Walter Focke (University of Pretoria). In addition, there were 5 keynote lectures. The Analitika conference series takes place every 4 years and is organised jointly by four divisions of SACI (Analytical, ChromSA, SAAMS and ThermSA) and the South African Spectroscopic Society (SASS). This conference has become a firm and highly anticipated conference series on the SACI calendar. Our thanks and congratulation go to Patricia Forbes (Chair of Analitika 2018) and her team for organising this very successful event.



Some of the plenary speakers and organising committee members at the Analitika conference dinner

The **15th Frank Warren Conference**, took place in the Drakensburg (KwaZulu-Natal) from 7-11 July

2019. Clinton Veale and Neil Koorbanally were the co-chairs of the organising committee and by all accounts this was once again a very successful conference. Certainly, the location and the quality of the speakers was of an excellent standard and we look forward to getting the full report on the conference in the near future.



Delegates at the 15th Frank Warren Conference in the Drakensburg

In the coming year we can look forward to the **19th Inorganic/Carmen Conference** to be hosted by the

Central Section and the **ChromSA/SAAMS** conference later in 2020.

Although not directly SACI events, there will be two major international chemistry conferences in South Africa in 2020. The **70<sup>th</sup> Annual Meeting of the International Society for Electrochemistry** will take place in Durban from the 4-9 of August. The Electrochemistry Division will be hosting the **5<sup>th</sup> International Symposium on**



**Electrochemistry** at UWC from the 11-14 August as a satellite meeting to the meeting in Durban.

The **26th IUPAC International Conference on Chemistry Education** will be held in Cape Town from 13- 17 July 2020. Professor Bette Davidowitz is the chair of the organising committee. The SACI Exco has fully endorsed this very important international event that will take place in Africa for the first time. We trust that SACI members will fully support this event and take the opportunity to engage with colleagues from around the world that have a passion for chemical education!

**Prof Peter Mallon**  
**Vice President and Chair of the programme committee**

### **SA JOURNAL OF CHEMISTRY**

Currently, all papers are freely available online and details of the journal and the editors can be seen at <https://www.sabinet.co.za/sajchem/>. The journal submission page can be found at <http://www.saci.co.za/journal/>. In 2019, we introduced the South African Journal of Chemistry Special Edition entitled "The computer-aided development of sustainable catalysts" to which we anticipate the issue to be completed by December 2019. In addition, Emeritus Professor Ford has written up a significant paper on the 100-year history of SAjchem, this is an excellent contribution that will enhance the "institutional memory" as it provides interesting insight into the creation of the journal, the paper was just accepted and will be published towards end of August 2019.

Statistics about the journal are presented in Table 1 (Web of Science July 2019). The numbers of citations are steadily increasing since 2008. Special acknowledgement should go to our dedicated editorial team of 24 members given in the Table 2. This year we have seen some of the older editors take relief while younger editors have enthusiastically taken up the task.

**Table 1: Web of Science citation report for source SAJCHEM**



**Table 2: 2019 SAJC editorial team**

<b>Organic Chemistry</b> 1. Prof Willem van Otterlo 2. Dr Leigh-Anne Fraser 3. Prof Gert Kruger  <b>Analytical Chemistry</b> 7. Dr. Lawrence M Madikizela 8. Dr Marc Humpries 9. Prof Priscilla Baker 10. Prof. Vernon Somerset 11. Prof. Luke Chimuka  <b>Materials Science and Nanotechnology</b> 15. Dr. Lucky Sikhwivhilu 16. Prof Patrick Ndungu 17. Prof. Nosipho Moloto	<b>Physical Chemistry</b> 4. Professor Bice Martincigh 5. Professor Jeanet Conradie <b>Educational Chemistry</b> 6. Professor Bette Davidowitz  <b>Inorganic Chemistry</b> 12. Dr. GEM Maguire 13. Dr Sam Mahomed <b>Computational Chemistry</b> 14. Prof. CGCE van Sittert  <b>Assistant Editors</b> 18. Mr. Siyabonga Maphumulo 19. Ms Kimberleigh Govender 20. Dr Sooraj Baijnath <b>Editors-in-Chief</b> 21. Prof. Tricia Naicker 22. Prof Patricia Forbes <b>Publisher</b> 23. Mr Nico Dippenaar <b>System Support and Developer</b> 24. Mr Colin Schwagele
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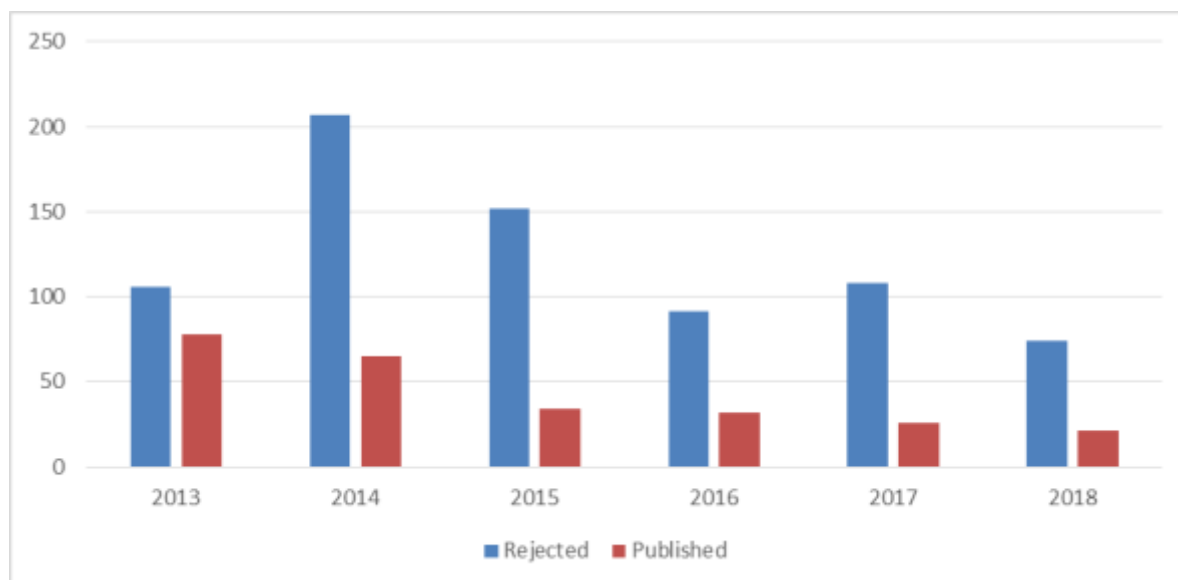
Since the beginning of 2016, the journal has two Editors-in-Chief on a rotational basis: First it was Profs Gert Kruger and Luke Chimuka. In 2018, this was followed by Prof Tricia Naicker whom replaced Kruger and then in 2019, Prof Patricia Forbes that replaced Chimuka. Currently Naicker is the editor in chief 1 that oversees the journal and its operation together with the “Screening to Approved” processes for all new submissions. Forbes whom is editor in chief 2 takes over from the approved to published processes for all submissions referred to as the “End process”. Prof. Luke Chimuka stepped down at the end of 2018 and is thanked for serving his two year term with smooth running. Prof Tricia Naicker will step down at the end of 2019 after serving two years as one of two Editors-in-Chief. Towards August 2019, a new editor will be recruited to replace her.

With regards to who is publishing in the journal, an updated 2019 search revealed that the majority of the papers published are still from South Africa. Iran is in second place, followed by India and China. USA is in 5th place, followed by Germany, Nigeria and Australia. Nigeria was in the 8th place in 2014. At least 21 other African countries are publishing in the journal (was 14 in 2014 and 19 in 2015).

The graph below gives the number of papers rejected and published from 2013 to 2018. In general the number published articles per year seem to be stabilizing around 25-30 per year with more than half of the papers rejected. This has helped to improve the quality of the published papers.



In 2010 the journal published 39 articles comprising 232 journal pages; the corresponding data for 2011 was 41 papers (262 pages), 2012 was 44 papers (285 pages) and 2013 was 46 papers (289 pages), 2014 was 39 papers (240 pages), 2015 was 34 paper (262 pages), 2016 was 32 papers (253 pages), 2017 was 26 papers (208 pages) and 2018 was 21 papers (195 pages). The impact factor of the journal is currently at about 0.65.



**Graph 1: Number of papers rejected and published from 2013 to 2018.**

The current SAjchem electronic system can now easily produce statistics for the submission process. Below are some of the statistics:

Some statistics from journal electronic system						
	2013	2014	2015	2016	2017	2018
Total submissions made	140	243	189	158	108	130
Analytical	22	45	61	53	37	34
Comp. Chemistry	15	12	14	12	9	6
Education	5	7	3	5	0	3
Inorganic	25	26	20	17	13	13
Nano	12	21	10	16	12	23
Organic	34	103	53	37	28	24
Physical	27	28	29	18	9	27

There has been a drastic increase in the number of papers being submitted in the nano and physical chemistry branches. We are considering bringing additional editors in these areas. The average days for acceptance and rejection varies from year to year. That is in our view the most important point that needs improvement, provided we can keep up the quality of the journal. The biggest challenge is finding quality reviewers who are also fast enough as this is the limiting factor in the whole review process. The other problem in this area is sometimes authors take more than the specified time to respond to their comments, we have now put in stricter timelines to which the paper will be withdrawn from the system should we not receive a reply after two reminders or 4 weeks. We envisage the incentive of rewarding authors via ORCIDs will alleviate the problem of securing reviewers. This approach is still being

investigated as it requires an annual subscription of about R16k. At the moment Sabinet is part of the ORCID RIPEN project where they working together to see how they can make implementations more cost effective for publishers. Once they are ready to award referees via the ORCID system they will notify SAJChem. The ORCID of the authors linked to their SAJChem papers is now a requirement though is not fully enforced. This is slowly being implemented to the submission process like other international journals.

#### **Finances of the Journal:**

Annual costs are about R17 283 to Sabinet for hosting the journal and about R41 840 for creating proofs (for 32 papers in 2016).

We also pay R1050 per month (R12 600 per annum) for hosting and maintenance of the Management system website. With additional work total is R17 590.

Total costs per year are about R77 153

**Prof Tricia Naicker**

**Editor-in-Chief of SAJC**

### **SACI NEWSLETTER**

The Newsletter is published monthly and reports on Sectional and Divisional events that have taken place. In addition, we report on activities of societies that SACI is affiliated to, for example, IUPAC, NSTF, RSC, FASC, etc. Conference calls are also placed in the newsletter as are job advertisements and items of research interest.

A small charge for advertisements in the newsletter is requested and this assists with raising funds to keep SACI alive.

I would like to thank all the contributors to the Newsletter and would like to invite any member to send me contributions of interest to other SACI members.

**Prof B Martincigh**

### **IUPAC**

The South African IUPAC national committee has been reconvened under the chair of Peter Mallon.

There had been a period of ineffective communication due to changes at the NRF with regards to persons responsible for IUPAC matters. Fortunately, these issues have been resolved and it is hoped that the national committee will go from strength to strength and we encourage all chemist to get involved in the various IUPAC activities. Currently only three members of SACI are formally involved in the various IUPAC structures.

Professor **Alan Hutton** of the University of Cape Town is the President of Division VIII: Chemical Nomenclature and Structure Representation Division. Professor **Marietjie Potgieter**, of the University of Pretoria, is a Titular Member of the Standing Committee on Chemical Education and assigned to the portfolio of "Special Projects". Professor **Peter Mallon** from Stellenbosch University has been reelected to serve as the National Representative on the IUPAC Polymer Division Committee (IV) for the term 2019-2021. Peter has also been elected as a member of the Polymer Division's Subcommittee on Polymer

Terminology (SPT). It is clear that there is scope for the involvement of more South African Chemists on the various Divisions and subcommittees of IUPAC and any persons wishing to have greater involvement please let Peter Mallon know. Formally, the NRF is the National Adhering Organisation (NAO) and the national committee has the opportunity to nominate via the NRF, SACI members to serve on the various IUPAC structures. IUPAC presents an excellent opportunity to increase and expand your international network while at the same time contributing to chemistry internationally.



Alan Hutton, the Division VIII President (Chemical Nomenclature and Structure Representation) presenting the Divisional report to the IUPAC Council.

2019 is an important year for IUPAC as it celebrates its **100 years of existence**. There have been a series of events over the year including at the IUPAC General Assembly and World Chemistry Conference held in Paris in the week of the 7-14 July. A special event was held in the Grand Salon of the Sorbonne University in Paris, to mark formally the Centenary of IUPAC. This certainly was a suitably grand venue to celebrate the 100 years of the organisation and its contributions to chemistry.



Special IUPAC 100 celebration event held in the Grand Salon of the Sorbonne University.

There were two very important highlights for South Africa with regards to IUPAC awards this year. The first was that of **Sadha Methura** from Wits who was awarded the element cobalt (Co) on the international Periodic Table of Younger Chemists ( <https://iupac.org/100/pt-of-chemist/>).

Sadhna was nominated for her dedication to multi-disciplinary scientific approaches, and for her teaching passion. This is one of the flagship events to celebrate the 150th anniversary of the periodic table. Sadha had the opportunity to attend the IUPAC General Assembly and World Chemist Congress in Paris as a Young Observer.



Special IUPAC 100 reception in the Grand Salon of the Sorbonne University in Paris

The second award was the Distinguished Women in Chemistry Award from IUPAC to **Prof Susan Bourne** from UCT. Susan formally received the award at the IUPAC meeting in Paris. Susan was one of only 12 awardees for this very prestigious international award and it is good to see South African chemists and in particular women chemists, flying the flag high on the international stage!



Susan Bourne from UCT receiving the IUPAC Distinguished Women in Chemistry awards at the IUPAC 2019 meeting in Paris

South Africa was represented at the IUPAC council meeting held during the General Assembly in Paris by Profs Mallon, Hutton and Potgieter. South Africa has three votes on the IUPAC council. Several important decisions were taken at the Council meeting. One of these was the endorsement of the Council to create a task group to look at the current IUPAC structure and make recommendations on **possible changes as IUPAC** enters its second centenary. Like many international organisations, IUPAC is under increasing financial pressure and needs to review its structure and relevance in order to continue contributing to chemistry in the next 100 years. Other important decisions at the Council Meeting was the

elections of Prof. **Javier García-Martínez** from Spain as the IUPAC Vice President and the selection of **Kuala Lumpur, Malaysia** as the site of the 53rd General Assembly and 50th World Chemistry Congress in 2025. There is a lot of pressure and interest from IUPAC to host one of the IUPAC General Assemblies on the African continent for the first time. Sadly, Nigeria's bid to host the 2025 meeting was not successful. One of the issues that the national committee will need to consider in the future is if South Africa should bid for the 2027 General Assembly. There certainly is the impression from the delegates attending the council meeting in Paris that there would be very strong support for such a bid from South Africa!

**Prof Peter Mallon**  
**Vice President**



The South African Council for Natural Scientific Professions (SACNASP) is mandated by Act No 27 of 2003 to register Natural Scientists in different Fields of Practice (FOP's), each having a Professional Advisory Committee (PAC) chaired by a representative from the different Voluntary Associations (VA's). The Council has to advise Government and relevant stakeholders on the contributions and role of the natural scientific professions in South Africa.

- **Registration Statistics**

SACNASP currently has 12 577 registered scientists, of which only 737 (6%) are Chemical scientists. Of these, 382 are registered on Professional, 177 on Certificated and 178 on Candidate level.

- **Voluntary Association Science Report Launch**

SACNASP hosted on 14 June 2018 at *Diep in die Berg* (Pretoria) a breakfast launch for the report "Role of SACNASP and its Voluntary Associations in the National System of Innovation" compiled jointly by the different VA's and the Human Sciences Research Council (HSRC). The survey was undertaken to assess the contribution by the VA's and affiliated registered scientists towards the realisation of national development imperatives within the National Systems of Innovation (NSI) framework. The report was handed over to Dr Thomas Auf der Heyde, DDG: Research Development and Support at the Department of Science and Technology (DST).

- **Free Student Enrolment Activations**

SACNASP hosted during the period under review free student enrolment campaigns at the University of Johannesburg, University of Pretoria, Tshwane University of Technology, University of Zululand, University of KwaZulu-Natal, University of Venda, University of Limpopo, North-West University, University of Mpumalanga, University of the Free State, Central University of Technology, Stellenbosch University and the University of Cape Town.

- **Provincial Networking Sessions**

SACNASP hosted provincial networking sessions during the current financial year in Limpopo (Polokwane, 8 May 2018), Gauteng (Midrand, 10 October 2018), North-West (Mahikeng, 30 October 2018), and Free State (Bloemfontein, 13 November 2018). The purpose of these sessions was to build and maintain relationships and form strategic partnerships among registered scientists from different FOP's.

- **Science Forum South Africa 2018**



The SFSA 2018 (12-14 December 2018) hosted about 3 000 researchers, scientists, policy-makers and students. SACNASP presented a panel discussion on “The Future of Natural Science” at this event.

- **NSTF-South32**

The 2018/2019 NSTF-South32 Awards Event recently celebrated the 2019 International Year of the Periodic Table of Chemical Elements (IYPT2019) declared by the United Nations (UN). Professor Robin Crewe (SACNASP Council Member) won the prestigious “Lifetime Award for Achievement by an Individual”. He is an internationally-renowned researcher, educator and innovator, and has contributed to the development of professional societies, academies and statutory bodies both locally and abroad.

- **New Website**

The new updated website is up and running and can be accessed on [www.sacnasp.org.za](http://www.sacnasp.org.za).

All applications for registrations/upgrades should now be made online. Scientists can access their portals to pay fees, update contact details and print certificates.

**Prof. ELJ Breet Pr.Sci. Nat., SACNASP PAC Chair for Chemistry**  
**Chairperson of PAC for Chemistry**

## **SECTION AND DIVISION REPORTS**

### **EASTERN CAPE**

No report submitted

**Dr R Krause**  
**Chairperson Eastern Cape Section**

### **SACI CENTRAL**

Nothing to report

**Dr A Lemmerer**  
**Chairperson Central Section**

### **SACI NORTH**

#### **1. Committee**

The SACI North section committee is constituted of academic and research institutions in the geographical area North of Gauteng and Mpumalanga i.e. Universities of Pretoria, Limpopo, Venda, Sefako Makgatho, Mpumalanga and Tshwane University of Technology including CSIR and NECSA. The current committee members and their portfolios are:

- Dr RM Mampa (Chairperson; University of Limpopo)
- Dr S Mnyakeni-Moleele (Vice-chair; University of Venda)
- Dr D Riley (Student matters; University of Pretoria)

- Dr MS Sonopo (Marketing and Events; NECSA)
- **Vacant** (Membership; Sefako Makgatho Health Sciences University)
- Dr M Modibedi (Treasurer; CSIR)
- Prof CM Nkambule (Secretary; Tshwane University of Technology).
- **Vacant** (University of Mpumalanga)

## 2. The 2018 activities

The SACI North Section Committee took a decision to defer 2018 Young Chemist Symposium to 2019 in anticipation of busy schedule in preparation of the National Convention. For that reason, there was no other activities other than the National Convention.

### 2.1 The 43<sup>rd</sup> National Convention of the SACI, CSIR-ICC, Pretoria, South Africa, 3<sup>rd</sup> to 7<sup>th</sup> December 2018

The conference was organised by SACI North Section. The theme of the conference is inspired by SACI's mission to "Promote the development and image of Chemistry in South Africa, to advise on chemical education and other Chemistry related legislative matters and issues of public and environmental concern, to play a leading role in assuring the professional competence and integrity of chemists and to foster international collaboration as part of an African chemistry community". As a result, the theme of this edition of the conference was "**Chemistry for sustainable African Economy**" which puts emphasis on the provision of solution that respond to the challenges of the development of Africa as a whole. To achieve this objective, international societies such as Royal Society of Chemistry (RSC) was prominently represented where a Memorandum of understanding was signed, thus cementing the rich historical relationship.

#### A. The Local Organising committee (LOC) was composed of the following members:

- **Chairperson**  
Dr RM Mampa
- **Vice-Chair**  
Dr SS Mnyakeni-Moleele
- **Treasurer**  
Dr RM Modibedi
- **Scientific Programme**  
Prof CM Nkambule
- **Student Matters**  
Dr SS Mnyakeni-Moleele
- **Marketing**  
Dr M Sonopo
- **Membership**  
Dr FM Muganza
- **Conference secretariat**  
Ms Laila Smith,
- **Extraordinary member**  
Ms Lillian Hlabangane  
City of Tshwane Convention & Visitors Services Bureau Conference secretariat

## B. The Scientific Committee was composed of the following members:

- |                           |                         |                                  |
|---------------------------|-------------------------|----------------------------------|
| ➤ Analytical Chemistry    | Prof Matthew Nindi      | (UNISA)                          |
| ➤ Catalysis               | Dr Peter Makgwane       | (CSIR) Research                  |
| ➤ Chemical Education      | Prof Helen Drummond     | (NWU)                            |
| ➤ Chromatography          | Dr Magda Rosemann       | (National Horseracing Authority) |
| ➤ Crystallography         | Prof A Muller           | (UJ)                             |
| ➤ Electrochemistry        | Prof O Arotiba          | (UJ)                             |
| ➤ Environmental Chemistry | Prof OJ Okonkwo         | (TUT)                            |
| ➤ Green Chemistry         | Dr Rosalyn Klein        | (RU)                             |
| ➤ Industrial Chemistry    | Dr Michael Booth        | (Private Consultant)             |
| ➤ Inorganic Chemistry     | Prof Timothy Egan       | (UCT)                            |
| ➤ Mass Spectrometry       | Dr Ljiljana Marjanovic  | (SGS)                            |
| ➤ Molecular Modelling     | Prof Penny Govender     | (UJ)                             |
| ➤ Molecular Spectroscopy  | Dr M Lekgoathi          | (NECSA)                          |
| ➤ Nanotechnology          | Dr Lucky Sikhwivhilu    | (Mintek)                         |
| ➤ Natural Products        | Dr S Mnyakeni-Moleele   | (UNIVEN)                         |
| ➤ Organic Chemistry       | Prof Ivan Green         | (SU)                             |
| ➤ Physical Chemistry      | Dr LC Murulana          | (UNIVEN)                         |
| ➤ Radiochemistry          | Dr D. Jansen            | (NECSA -NTP Radioisotopes)       |
| ➤ Thermal Analysis        | Dr Liezel van der Merwe | (UP)                             |

## C. Invited speakers

More than 100 oral and 140 poster presentations were delivered during the five day conference by both local and internationally acclaimed chemical scientists within the four main spheres of Chemistry i.e. Organic, Inorganic, Physical and Analytical. The conference had 19 thematic fields of chemistry which were all represented. A notable list of the invited speakers included:

### I. Plenary speakers

- Prof Sir Fraser Stoddart, Northwestern University, USA (*Organic*)
- Prof Kelly Chibale, University of Cape Town, RSA (TB and Malaria Drug Discovery)
- Prof Lutz Ackermann, Georg-August Universität Göttingen, Germany (*Organic*)
- Dr Mehran Alaei, Environment and Climate Change Canada, Canada (*Analytical*)
- Prof Emmanuel Iwuoha, University of Western Cape, RSA (*Electrochemistry*)
- Prof Malose Mphahlele, University of South Africa, RSA (*Medicinal Chemistry*)
- Prof Tom Welton (RSC)
- Prof Roger Smith from the UK (*Analytical Chemistry*)



## II. SACI Awards Plenary Lectures

- 2017 Gold Medal (Polymer Chemistry) Prof H Pasch, University of Stellenbosch
- 2018 Gold Medal and Malaria Drug discovery) Prof K Chibale, University of Cape Town (TB)
- 2016 Raikes Medal (Analytical) Prof ZR Tshentu, Nelson Mandela University
- 2017 Raikes Medal Prof DI Bezuidenhout, University of the Witwatersrand (Organometallic Chemistry)
- 2016 Chemical Education Medal Prof H Drummond, North-West University (Chemical Education)
- 2017 Chemical Education Medal (Chemical education) Dr PA Pilcher, University of Pretoria

## III. Keynote speakers

- Prof OA Asojo, Baylor college of Medicine, USA (*Organic*)
- Prof R Hanson, University of Education Winneba, Ghana (*Education*)
- Prof S Marx, North-West University, RSA (*Industrial*)
- Prof SO Ojwach, University of KwaZulu-Natal, RSA (*Electrochemistry*)
- Prof MW Peczu, University of Connecticut, USA (*Organic*)
- Dr J Rajput, Tomorrow matters Now, RSA (*Green Chemistry*)
- Prof Roger Hunter - South African Journal of Chemistry (Organic Chemistry)
- Prof Joyce Kiplimo - Natural Product Chemistry (Natural Product Chemistry)
- Dr Hein Potgieter – Chromatography SASOL (Chromatography)

## D. Partners/Sponsors and Exhibitors

The conference had more than twenty (20) sponsors and nine (9) exhibitors.

The following were partner/sponsors:

1. University of Venda
2. Tshwane University of Technology
3. University of Limpopo
4. Sefako Makgatho Health Sciences University
5. Council for Science and Industrial Research (CSIR)
6. Nuclear Energy Cooperation of South Africa (NECSA) and
7. City of Tshwane
8. Department of Science and Technology (DST)
9. National Research Foundation (NRF)
10. Royal Society of Chemistry (South Africa North Local Section)
11. PerkinElmer South Africa
12. Bruker South Africa
13. Siemens Healthineers
14. Prama
15. Merck
16. NECSA – NTP

17. NECSA – NuMeRi
18. Ingaba Biotech
19. Separation Scientific (Sep Sci)
20. Hidden Analytical

The following were Exhibitors:

21. CAS – Chemistry Class Advantage, a division of American Chemical Society
22. NUMERI, a division of NECSA
23. HIDEN Analytical
24. Altamira Instruments
25. PerkinElmer
26. Bruker SA
27. CSIR – Nano Material Science Unit
28. Ingaba Biotech

### E. Conference Workshops

The conference experienced two workshops: one on Molecular modelling offered by Schrodinger and another on Advanced SciFinder offered by the Chemistry Class Advantage (CAS), a division of American Chemical Society. The two workshops were free of charge and took place concurrently on Thursday, 6<sup>th</sup> December 2018 from 16h30 to 17h45. Delegates were requested to choose one workshop to attend at the registration desk on the bases of “First come first served” policy. A total number of 111 delegates attended the two workshops.

#### WORKSHOP ONE: Molecular Modelling Workshop

**SCHRÖDINGER**

The date of the workshop was December 6<sup>th</sup> at CSIR-ICC, in Pretoria from 16h30 to 17h45. The topic for the workshop was **Molecular Modelling for life science applications**. The workshop was held in partnership with the 43<sup>rd</sup> National Convention of the South African Chemical Institute. Dr S Ehrlich from Schrodinger, gave a scientific lecture on Computer Modelling on the Thursday the 6<sup>th</sup> which was then followed by the workshop. More information is accessible from Dr Craig Coel at email: [craig.coel@schrodinger.com](mailto:craig.coel@schrodinger.com)

Tel (Office) +49 (0) 8945-83-5348 or **SKYPE:** craig.coel or **website:** [www.schrodingermaterials.com](http://www.schrodingermaterials.com).

#### WORKSHOP TWO: Advanced SciFinder



This workshop was given on the 6<sup>th</sup> December 2018 at CSIR – ICC, Pretoria as a parallel session to the above. The workshop provided information on the advanced use of SciFinder software program on the data search and many other functionalities. The delegates taking this workshop were also advised to bring along their laptops and connect to the internet via free WIFI provided by the CSIR-ICC. More information is accessible from: *Veresha Dukhi*, Accounts Consultant at ACS International Ltd, Tel: +27 61504 6598, email: [vdukhi@acs-i.org](mailto:vdukhi@acs-i.org), website: <https://www.cas.org/>

## **F. Student Awards**

The conference LOC awarded certificates and vouchers to the students in the category of best Oral and Poster presentation. As indicated earlier, more than 150 students participated in the conference. The best performers were adjudicated upon by a panel of judges following a standard criterion. The following student were judged to have excelled in their respective categories and listed below where position 1 is the highest prize.

### **(i) Oral Presentation Category**

1. Ms N. Tsolekile (Cape Peninsula University)
2. Mr Y. Hoosen (University of the Witwatersrand)
3. Ms L. Molele (University of Limpopo)

### **(ii) Poster Presentation category**

1. Ms H. Netshifhefhe (University of Venda)
2. Ms L. Molefe (CSIR/University of Johannesburg)
3. Mr V. Ramaotsao (University of Pretoria/CSIR)

## **G. Conclusion**

The 43<sup>rd</sup> SACI National Convention has attracted over 324 delegates from South Africa, Lesotho, Botswana, Zimbabwe, Iswatini, Kenya, Tanzania, Nigeria, Ghana, Democratic Republic of Congo, Uganda, Malawi, United States of America, Canada, Germany, United Kingdom and many more. The conference has exceeded its proposed target number of 150 of student delegates whom majority of them took advantage of discounted registration fee as suggested in the DST Funding acceptance conditions. What is more pleasing is that, according to our registrations statistics, women constituted more than 50% of the total conference delegates.

The overall response from the delegates about the conference is that it was a huge success accept for challenges with regard to time keeping during the lecture sessions and sponsorships. A group picture of the conference delegates is attached below for reference on Monday, 2<sup>nd</sup> December 2018.



**Dr RM Mampa**  
**Chairperson North Section**

### **KWAZULU-NATAL**

The South African Chemical Institute, KwaZulu-Natal Section had a number of activities held from August 2018 to August 2019. First, we had the SACI KZN HONS/BTECH symposium, held at Durban University of Technology (DUT) on 25 October 2018 where students from DUT, UniZulu, MUT, UKZN Westville and UKZN Pietermaritzburg presented 10 oral and 10 poster presentations. For each of the two categories of presentations, we awarded two cash prizes, sponsored by RSC North Section, for the best presentation and runner-up.

We also had the Annual General Meeting (AGM) alongside the SACI KZN-RSC lunch on 12 December 2018 during which we elected new office bearers and committee members. The new committee is made up of the following: Bernard Omondi as the Chairperson, Irvin Booysen as the Vice-Chair, Phindile Khoza as the Secretary and Werner van Zyl as the Treasurer, other committee members are Vincent Nyamori (UKZN), Bice Martincigh (UKZN), Tony Ford (UKZN), George Carr (Industry), Stephen Ojwach (UKZN-PMB), Lawrence Madikizela (ChromSA), Thishana Singh (UKZN), John White (DCC), Thabang Mokhothu (DUT), Kudzai Mugadza (Student Representative) and Xolani Nocwada (Industry).

We had the annual SACI Postgraduate Research Colloquium, which was also held at DUT in conjunction with CHROMSA. For this event, we had an attendance of about 120 students, lecturers and industry representatives with Leco as the main sponsor. Lastly, we had the IUPAC Global Women's Breakfast on the 12 February 2019.

Unfortunately, due to student protests across most of the universities in KZN and other commitments by our magicians (Profs Bice Martincigh, Vincent Nyamori and Bernard Owaga), our annual magic show normally held in November did not take place. The magic show is, however, scheduled for later this year and will be held at UKZN Westville Campus.

Other events planned for the year ending August 2020 will include the Hons/BTECH Symposium to be held at UKZN-PMB in October, the KZN Colloquium to be held at UniZulu in early 2020 and an event honouring The Year of the Periodic Table that will involve school children in and around KZN. Detailed reports of the above-mentioned events follow.

***SACI KZN 2018 SACI HONS/BTECH symposium held at Durban University of Technology (DUT) on 25 October 2018***

The SACI KZN Section organises the annual Honours/BTech Symposium. The event was kindly organised by Drs. Thabang Mokhothu, Lawrence Madikizela, Thishana Singh and Prof Vincent Bisetty. The 2018 SACI Hons/BTech Symposium was held at the DUT Library Complex on Thursday 25 October 2018 and approximately 100 students turned up for the event from universities across the KZN province, including Durban University of Technology, University of KwaZulu-Natal, University of Zululand and Mangosuthu University of Technology. The event sees academics and students converging in one area to discuss employment, funding, research and developments within the field of chemistry.

The symposium caters for postgraduate students doing their Honours and Bachelor of Technology degrees. The students are given an opportunity to present their research to fellow students and academics. Top students that are studying chemistry are selected from each university and compete against each other for the best presentation.

Delivering the keynote address at the event was Professor C. Napier from the Faculty of Applied Sciences, who talked on the research done at DUT and encouraged young scientists at the start of their careers to stay motivated and keep up the hard work.

Ten students, two from DUT, two from UniZulu, two from MUT, and two each from UKZN Westville and UKZN Pietermaritzburg campuses, presented their BTech/Honours research projects orally while another 10 students presented posters on their projects. The oral and poster presentations were adjudicated and two prizes were awarded for each of the two categories, the oral and poster presentations. The winners are listed below together with their respective institution. The prizes were sponsored by the RSC North section, whom we kindly acknowledge.

**Oral presentations:**

**1st place: Sonam Singh:** Synthesis and characterisation of propylparaben molecularly imprinted polymers: The effect of the porogenic solvent on the structure and stability of the polymers, UKZN WVL

**2nd place: Pooja Philip:** Synthesis of Palladium Decorated Nitrogen-doped Carbon Nanotubes for the Reduction of 4-Nitrophenylferrocene to 4-Ferrocenylaniline, UKZN WVL

**3rd place: Khan MA:** Adsorption of Reactive Dyes onto Bamboo-based Activated Carbon Magnetic Nanoparticles, DUT

Some photos of the awardees are given below.



Oral prize winners: Top left: Miss Sonam Singh; top right: Miss Pooja Philip; bottom Mr MA Khan, shaking hands with the SACI president, Prof Vincent Nyamori, and the SACI KZN Chair, Prof Werner van Zyl.

#### **Poster presentations:**

**1st prize: Kandice Naidoo, UKZN PMB**

**2nd place: Marcia Chetty, UKZN WVL**



Poster prize winners: Left Miss Kandice Naidoo; right Miss Marcia Chetty, shaking hands with the SACI president, Prof Vincent Nyamori, and the SACI KZN Chair, Prof Werner van Zyl

## **Report compiled by Werner van Zyl**

### ***2018 SACI KZN /RSC Lunch and SACI KZN AGM***

The **Annual General Meeting** of the KZN Section was held on Wednesday, 12th December 2018 from 12h30 at the School of Chemistry and Physics, University of KwaZulu-Natal, Westville Campus, Level 2 Tearoom. The attendance was good and on the agenda for the meeting some of the items, included, the chairperson's report, the financial report, Awards of the Institute as well as elections of new office bearers for SACI-KZN for 2019. Two life memberships were awarded to **Mrs EU Anderson** (membership no. 52090) who has been with SACI for 40 years and **Mr GWP de Mattos** (membership number 20748) who has been a member for 37 years. Prof Bice S Martincigh also received her certificate for having been made a SACI Fellow.

The new committee is made up of the following: Bernard Omondi as the Chairperson, Irvin Booysen as the Vice-Chair, Phindile Khoza as the Secretary and Werner van Zyl as the Treasurer, other committee members are Vincent Nyamori (UKZN), Bice Martincigh (UKZN), Tony Ford (UKZN), George Carr (Industry), Stephen Ojwach (UKZN-PMB), Lawrence Madikizela (ChromSA), Thishana Singh (UKZN), John White (DCC), Thabang Mokhothu (DUT), Kudzai Mugadza (Student Representative) and Xolani Nocwada (Industry).

### ***IUPAC Global Women's Breakfast – 2019***

The Global Women's Breakfast was designed to assist women chemists to expand their network of contacts, both locally and internationally. The first breakfasts began in New Zealand at approximately 07:00 local time, initiating a global hand wave around the world ending in Hawaii. In South Africa breakfasts were organised in Stellenbosch, Durban and Johannesburg.

The breakfast in Durban was held on the Westville Campus of the University of KwaZulu-Natal at the Smart Grid Research Center. The School of Chemistry and Physics, UKZN, Westville Campus hosted the event and the funders included, the School of Chemistry and Physics, UKZN, SACI-KZN and SACI-Central Office, Shimadzu, Anton Paar. Unilever, UKZN (College of Agriculture, Engineering and Science), Merck, Wirsam Scientific, Whitehead Scientific, Laboquip, United Scientific and Capital Research Distributors sponsored items that were presented to the guests.

It was attended by about 120 women and a handful of men from industry and tertiary institutions. The following industries were present: Umgeni Water, Sappi Saiccor, Unilever, Sugar Milling Research Institute, CSIR, Sapref, eThekweni Municipality, Bosch, CSIR, RCL Foods, Amino South Africa, NCP Alcohols, NCS Resins, South African Medical Research Council, Marico South Africa, Tongaat Hulett, Anton Paar, Sasol Base Chemicals and Pac con Pharmaceutical. From tertiary institutions we had representation from: Durban University of Technology, Mangosuthu University of Technology, University of Zululand and University of KwaZulu-Natal.

The program began with a Welcome address from the DVC of Teaching and Learning, Prof Songca, who is also a chemist. This was followed by a video presentation by the international organizer, Prof Mary Garsons from New Zealand, a IUPAC presentation by Prof Bice Martincigh who is a member of IUPAC, as well as two guest speakers from industry, Dr Ntsapokazi Deppa (Umgeni Water) and Dr Tracy Wessels (Sappi Saiccor). Both guest speakers have PhDs in chemistry and are successful women chemists in industry. They shared their personal journeys in chemistry including highlights and challenges being females



in a chemical industrial environment as well as the challenges they experienced during their postgraduate studies. Their talks were inspirational to many of the younger women chemists present and a number of the younger chemists approached both speakers after the official program to further chat and network. In addition, the global map showing the breakfast events pinned on the map was projected and attendees could see the map pins changing colour as the time zones across the continents changed. UKZN was very proud to be part of this global event. The event was videoed and livestreamed and IUPAC was able to follow our event from our live stream link.

There was an overwhelming positive response to the event with some attendees commenting that it was long overdue and the event needs to be held on a regular basis. In fact the number of attendees could have been higher if we had a larger venue. The School of Chemistry and Physics at UKZN would like to continue with this initiative and have decided to hold another event on a much smaller scale at the Pietermaritzburg Campus to build the relationship between industry and academia. This will take place sometime next year. We would like to make this an annual event if possible but it is funding dependent.

The event got publicity through, Twitter (Twitter handle: @InUkzn), Emailing industry and academic contacts, UKZN website <https://caes.ukzn.ac.za/empowering-women-in-chemistry-breakfast/> and Media coverage from SABC, The Natal Mercury, UKZN media. For photographs, please see the university link above and the twitter account for the event. In addition, photos were posted on twitter throughout the event as requested by IUPAC.

We thank all the sponsors and organisers, Dr Brenda Moodley, Dr Thishana Singh, Dr Chantal Koorbanally and Dr Roshila Moodley (all from UKZN) for making this event possible.





### ***The 2019 PG Colloquium***

The 2019 SACI KZN Postgraduate Research Colloquium was held on the 6 March 2019 from 09:30 a.m. at the Durban University of Technology, Hotel School, on Ritson Campus of DUT. DUT, Leco, SACI-KZN and CHROMSA financially supported the event. Prof V K Bisetty, who introduced the keynote speaker, Prof MM Nindi, opened the event. Postgraduate students from the DUT, UniZulu, UKZN-PMB and UKZN-WV delivered fourteen oral presentations (see details in the program below) in two categories, MSc and PhD. There were also a number posters presented at the event.

At the same event, was also a key lecture by Dr Lawrence Madikizela who was awarded the Chromatographer of the Year award by ChromSA (presented by Prof P Forbes). The SACI national president Prof VO Nyamori who presented the awards to winners of the postgraduate presentations also graced the occasion.

The prize-winners of the 2019 SACI Postgraduate Research Colloquium were as follows:

#### **Category**

	<b>Prize</b>	<b>Winner</b>
Oral PhD First	RSC North cash prize Bag – Leco	Edward Armah
Oral PhD Second	RSC North cash prize Bag – Leco	Wesley Ng’etich
Oral PhD Runner-up	DUT gift	Grace Obi
Oral MSc First	RSC North cash prize Bag – Leco	Sithembiso Mtshali
Oral MSc Second	RSC North cash prize Bag – Leco	Mthokozisi Mkhize
Oral MSc Runner-up	DUT gift	Nomchenge Mlunguza
Poster First	RSC North cash prize Powerpack – Leco	Simphiwe Ngwenya
Poster Second	RSC North cash prize Powerpack – Leco	Busisiwe Danca
Poster Runner-up	DUT gift	Nomnotho Jiyane
Poster Runner-up	DUT gift	Nasir Tajuddeen
ChromSA First	Chromsa to award	Mtshali
ChromSA Second	Chromsa to award	Elizabeth Omotola

**Prof Bernard O Owaga**  
**Chairperson KZN Section**

## WESTERN CAPE

**September 2018**

### **Inspiring the community** (by David Gammon)

The year of activities in the Western Cape started with truly inspirational news about Dr John Woodland (University of Cape Town) who was awarded the prestigious Inspirational Member Awards 2018 by the Royal Society of Chemistry *for his positive impact through his plays promoting the chemical sciences and ensuring that the performances were accessible to children from all parts of the local community*. John has been the energy and driving force behind the revitalizing of the annual RSC Jack Elsworth lecture at UCT, through his creative scripts and marshalling of the talents of post-graduate students. The shows have entertained and educated young and old, and have been a wonderful advertisement for the fascination that Chemistry holds and its broad applications. John has many other achievements in the arena of communication of science to the wider community, and this RSC accolade is just reward for his sustained commitment to this. John joined SACI during his first year of MSc in 2012 and has served on the RSC South Africa (South) Local section committee since 2014. John is currently working as a research scientist at the Drug Discovery & Development Centre (UCT).



Dr John Woodland (UCT)

**November 2018**

### **AGM and PD Hahn lecture** (by Niki Báthori)

The 76<sup>th</sup> SACI AGM (Western Cape division) was held on the 20 November 2018 at the University of Cape Town. The AGM was attended by about 50 people (academic, professional and student members).

The meeting started with the acceptance of the minutes of the 75<sup>th</sup> AGM (Willem van Otterlo proposed acceptance and was seconded by Denzil Beukes). The WC chairperson, Nikoletta

B. Báthori, presented the financial report (compiled by the treasurer, Margaret Blackie) and delivered the report on the activities of the past year. The mandate of the existing Western Cape committee was extended for 2018-2019 in its current format: Nikoletta B. Báthori chairperson, Willem van Otterlo past chairman, Robbie Luckay secretary, Margaret Blackie treasurer, Gareth Arnott, Peter Mallon, Ivan Green, Delia Haynes, and 3 student representatives (Megan Matthews, Godwin Dziwornu and Franklin Quelain De Bruin). The committee was extended by two new members, Edith Antunes (UWC) and a student representative for CPUT, Ramokone Junia Malapile. The AGM ended at about 17h45.

The SACI AGM was followed by the 30<sup>th</sup> P. D. Hahn lecture, a prestigious, biennial memorial lecture hosted by the Royal Society of Chemistry, South Africa, Southern Section.



Prof. André de Villiers (SU)

Prof. David Gammon, chair of local RSC section, introduced the invited speaker, Prof. André de Villiers, professor of Analytical Chemistry in the Department of Chemistry and Polymer Science at Stellenbosch University. Prof. de Villiers started his lecture, entitled ‘New dimensions in chromatographic separations’, with a brief overview of the fundamental and instrumental aspects of multidimensional gas- and liquid chromatographic separations, focusing on two-dimensional gas chromatography and liquid chromatography and presented some examples of chemical analysis of South African natural products, including indigenous herbal tea and wine volatiles. The lecture was followed by a vibrant Q&A session, finished at 19h00, and was followed by refreshments.

November 2018

**SACI/RSC dinner of the Western Cape section (by Niki Báthori)**

The annual joint SACI/RSC dinner of the Western Cape section was held on the 26<sup>th</sup> of November at the Stellenbosch Golf Club and hosted 77 attendees from the four universities of the Western Cape.

We congratulated the three James Moir medallists, Mr Athi Welsh (University of Cape Town), Ms Zimkhitha Nqakala (University of the Western Cape) and Mr Justin John Moser (Cape Peninsula University of Technology). The Western Cape section secured two SACI Post-graduate medals in 2018, awarded to Ms Alet van der Westhuyzen (Stellenbosch University) and Ms Shakeela Sayed (University of Cape Town). The 2018 SACI Gold medal was awarded to Prof. Kelly Chibale (University of Cape Town) and a moving speech was given by Prof. David Gammon to highlight some of many achievements of Kelly. It was also noted that six out of the seven SACI Gold medal recipients from the Western Cape were attending the dinner: Profs Piet Steyn (1987), Luigi Nassimbeni (2003), Len Barbour (2014), Timothy Egan (2016), Harald Pasch (2017) and Kelly Chibale (2018). (The seventh recipient, Prof. Bert Klumperman (2013), was out of the country, unfortunately.) The presence of these internationally acclaimed chemists contributed significantly to the inspiration of the new generation of chemists who, based on some already deleted photographs, have enjoyed the evening very much.



From left to right: Prof. Nikoletta Báthori (SACI WC Chair), Ms Zimkhitha Nqakala (James Moir Medal, UWC), Ms Shakeela Sayed (Post-graduate award, UCT), Mr Justin John Moser (James Moir Medal, CPUT), Prof. Kelly Chibale (Gold Medal, UCT), Mr Athi Welsh (James Moir Medal, UCT), Ms Alet van der Westhuyzen (Post-graduate award, SU) and Prof. Peter Mallon (SACI Vice-President).



Prof. Kelly Chibale, SACI Gold medal 2018





SACI Gold medal recipients: Profs Piet Steyn (1987), Len Barbour (2014), Harald Pasch (2017), Kelly Chibale (2018), Luigi Nassimbeni (2003) and Timothy Egan (2016).



Attendees at the SACI/RSC 2018 annual dinner.

February 2019

**Global Women's Breakfast- IUPAC100** (by Susan Bourne)

About 40 women (and one man) gathered at the Stellenbosch Botanical Gardens for an informal breakfast on 12 February 2019 from 08h30 to 10h30. There was participation from the University of Cape Town, University of Stellenbosch and Cape Peninsula University of Technology. Margaret Blackie (University of Stellenbosch) opened the event by outlining the purpose of gathering to celebrate the contributions and achievements of women in Chemistry. She explained that this global event was intended to celebrate the centennial of IUPAC as well as the 2019 International Year of the Periodic Table. We joined some 200 breakfasts taking place around the world, starting in New Zealand and moving west with the time zones. The event was broadcast on twitter using #IUPAC100 and #GlobalBreakfast (with this event's handle being @RSC-za).

Susan Bourne, Cesarina Edmonds-Smith (both University of Cape Town) and Seanette Wilson (Biovac Institute) had been invited to form a panel for discussion, selected because each is at a different career stage and each had followed different career paths. PhD student Bella Claassens (Stellenbosch) and MSc student Junia Malapile (CPUT) led the way in posing questions to members of the panel, and facilitated discussion with the audience. Topics covered included leadership, managing work/life balance, raising children while building a career, finding your strengths and a number of others.

Shortly before 10h30, a video link was established with our counterparts in Leipzig, Germany, who were beginning their breakfast as ours ended. Thanks to the RSC (Southern Section) and SACI for support, and to Margaret Blackie, Bella Claassens and Junia Malapile for organising and running an outstanding networking event.



Discussion panel of Global Women's Breakfast-IUPAC100. From left to right: Junia Malapile (CPUT), Bella Claassens (SU), Susan Bourne (UCT), Seanette Wilson (Biovac Institute) and Cesarina Edmonds-Smith (UCT).



Attendees of the first Global Women's Breakfast- IUPAC100.



**February 2019**

**IUPAC award for Susan Bourne (by Niki Báthori)**

On the 7<sup>th</sup> of February, IUPAC announced Prof Susan Bourne (University of Cape Town) as one of the twelve awardees of the IUPAC 2019 Distinguished Women in Chemistry or Chemical Engineering. This prestigious award was created to acknowledge and promote the women chemists and chemical engineers worldwide for their outstanding contribution to the discipline. Susan was recognized for her excellence in supramolecular chemistry research, for her leadership qualities and her continuous support and mentoring of women scientists. We congratulate Susan for this outstanding achievement and thank her for her continuous support of the activities of the Western Cape.



Prof. Susan Bourne receives her award at the IUPAC General Assembly, Paris.

**April 2019**

**New Chemistry on the Block 2019 (by Niki Bathori)**

The general aim of this event is to highlight chemistry in the Western Cape with a focus on new researchers and novel research directions. The first event of the New Chemistry on the Block seminar series was created by Prof Willem van Otterlo and it was held in 2016 at Stellenbosch University. Guest speakers are invited from the four tertiary institutions of the Western Cape to present their research interests and achievements in the early stage of their career, typically 3-4 years after their appointment.

This year, the event was held on the 3rd of April at the University of the Western Cape. The four invited speakers were Dr Siyabonga Ngubane (University of Cape Town), Ms Ncediwe Ndube-Tsolekile (Cape Peninsula University of Technology), Dr Keagan Pokpas (University of the Western Cape) and Dr Rehana Malgas-Enus (Stellenbosch University). The talks covered the synthesis of metallodrugs, nanoparticle based theranostic agents, sensor technology, engineering of nanoparticles and science engagement.

The event was well attended by staff and students from all the academic institutions of the Western Cape (50 + participants), ending with a casual discussion session held over great food and good wine.

SACI Western Cape and the RSC Southern Section would like to thank Prof. Edith Antunes (Chemistry, UWC) and Prof. Denzil Beukes (Pharmacy, UWC) for organizing the event.



*Dr Siyabonga Ngubane (University of Cape Town)*

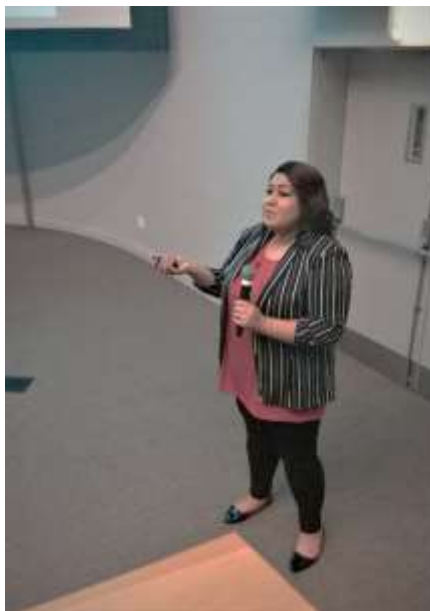


*Ms Ncediwe Ndube-Tsolekile (Cape Peninsula University of Technology)*



*Dr Keagan Pokpas (University of the Western Cape)*





*Dr Rehana Malgas-Enus (Stellenbosch University)*



*Niki Báthori (SACI WC chair), Ncediwe Ndube-Tsolekile (CPUT), Keagan Pokpas (UWC), Rehana Malgas-Enus (SU) and Siyabonga Ngubane (UCT)*

## **May 2019**

### **Western Cape Young Chemists' Symposium (by the organizing committee)**

On the 17<sup>th</sup> May 2019 the Cape Peninsula University of Technology (CPUT) hosted the Young Chemists' Symposium for the very first time. The SACI/RSC Young Chemists' Symposium aims to bring together all postgraduate chemistry students to share their research. It is also a great opportunity to network and establish connections. This year the invitation was extended to disciplines interrelated to chemistry such as chemical engineering and biochemistry and the number of attendees were over 80.

The theme for this year was "*Celebrating the 150<sup>th</sup> year of the periodic table*". The students presented 9 oral presentations, 2 flash talks and 5 online posters which were shared on the YCS Facebook page *SACI/RSC-WC Young Chemists' Symposium 2019* for engagement.

Keeping to the theme, we had a Periodic Table themed cake sponsored by the Vice Chancellor of CPUT, Prof. Chris Nhlapo whom we are grateful to. Drawing from the 2018 Young Chemists' Symposium, we also had a panel discussion from two panellists who have a chemistry background but are not in academia or research. The two guest speakers/panellists were Dr Kate Davies PhD (UCT)

who works as an Educational Technologists at Siyavula and Mr Pearson Mururi BSc (Hons) (Wits) who works as a Cost and Commodity Analyst at Afriforesight. This was truly insightful as it got a lot of students thinking about the future and what soft skills one could gain from postgraduate studies.

As the Organizing committee we would like to express our gratitude to the CPUT staff and management, SACI Western Cape division, RSC Southern Section, the respective chemistry departments of the four universities in our province for all the assistance. We would also like to thank all the student presenters and attendees for supporting the 2019 Young Chemists' Symposium. We look forward to seeing you at the 2020 meeting!

Organizing Committee (Ramokone Junia Malapile (chair), Sosthène Nyomba Kamanda, Maelsand Aliwa Awongo, Jenny Chansa Lumbala and Justin John Moser)



Prof. Chris Nhlapo, Vice Chancellor of CPUT is welcoming the attendees



The organizing committee, Justin John Moser, Ramokone Junia Malapile (chair), Maelsand Aliwa Awongo, Jenny Chansa Lumbala, Sosthène Nyomba Kamanda, and Nikoletta B. Báthori (SACI WC chair)



Speakers and poster presenters of the 2019 Western Cape Young Chemists' Symposium

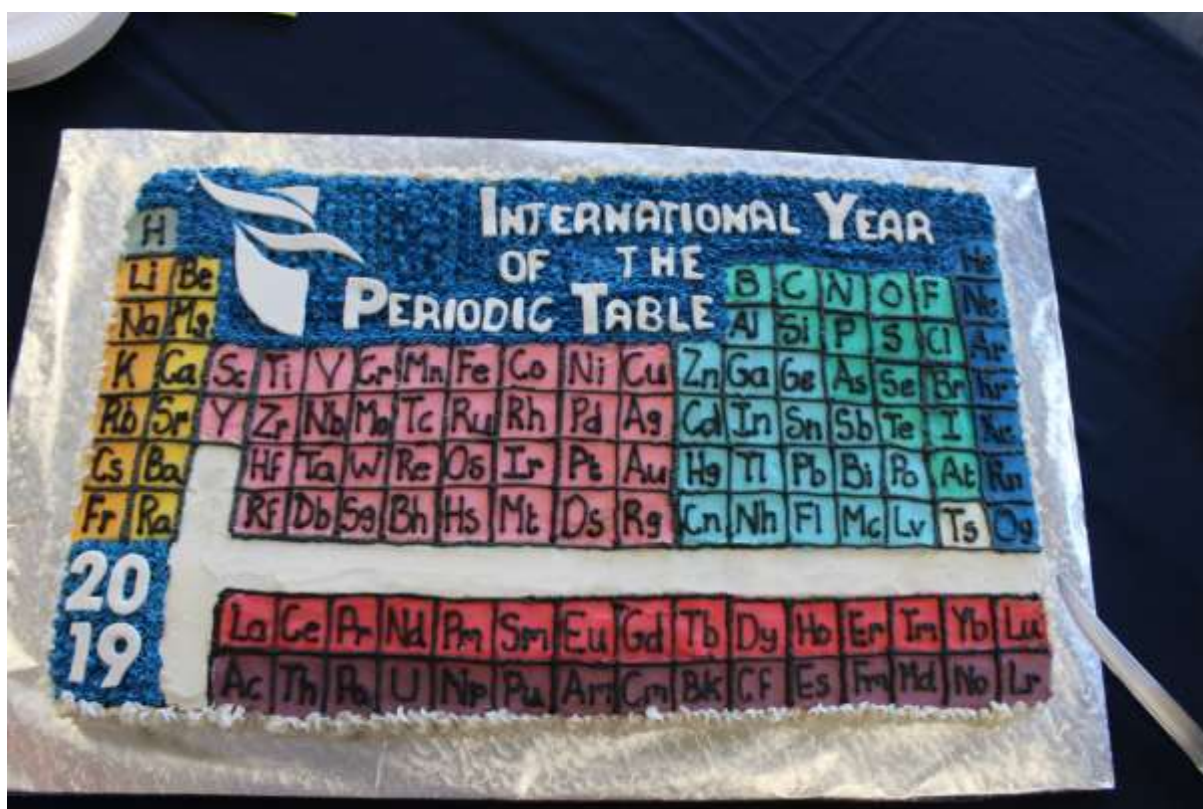


The two guest speakers, Mr Pearson Mururi (Afriforesight) and Dr Kate Davies (Siyavula) with the moderator of the session, Maelsand Aliwa Awongo





Attendees of the 2019 Western Cape Young Chemists' Symposium



Periodic Table themed cake

**Prof Nikoletta B. Báthori**  
**Chairperson of SACI Western Cape**

## **ANALYTICAL CHEMISTRY**

Nothing to report

**Prof MM Nindi**  
**Analytical Chemistry**

## **CHEMICAL EDUCATION**

The Chemical Education web page has been given a new look and updated. A session on chemical education was held at the SACI conference in December 2019. The guest keynote speaker was Prof Ruby Hanson from Ghana. There were also two other interesting and stimulating talks. The past two Chemical Education Medal award winners, Lynne Pilcher and Helen Drummond, gave plenary lectures. With Bette Davidowitz as chair, we are busy planning for the 26<sup>th</sup> IUPAC International Conference on Chemical Education ICCE 2020 which will be held in Cape Town from 13-17 July 2020. The theme of the conference is “A 2020 Vision of Chemistry Education.” All details are available on a link from the web page.

**Prof H Drummond**  
**Chemical Education**



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### **ANNUAL REPORT ON THE ACTIVITIES OF THE CHROMATOGRAPHY DIVISION FOR THE PERIOD MAY 2018 TO APRIL 2019**

#### **A) COMMITTEE and MEMBERSHIP:**

Four committee meetings were held during the above period. The committee members are:

Chairperson:	Mrs. Wiana Louw
Immediate past Chairperson:	Dr. Magda Rösemann
Treasurer:	Mrs. Belinda Hickman Mosdell
Membership/Communications:	Dr. Yvette Naudé
Branding/Website:	Dr Charl Yeates
Minutes Secretary	Ms. Vuyo Silwana

Additional members: Prof. Patricia Forbes Mrs. Anita Botha, Mrs. Mamsy Motlanthe and Mrs. Hannalien Meyer.

#### **Western Cape Representation**

Chairperson:	Prof. André de Villiers
Secretary:	Dr. Gordon Shephard

Additional members: Prof. Ben Burger, Prof. Ivan Green, Brenda Marx, Iain Moodie, Dr. Marietjie Stander, Dr. Mare Vlok, Merrill Wicht and Wessel Kriek.

#### **KwaZulu Natal Representation**

Mr. Lawrence Mzukisi Madikizela

#### **Limpopo Representaion**

Nikita Tavengwa

There are currently over 500 members on the ChromSA mailing list.

## **B) MEETINGS:**

Four Committee meetings were held during the period under review:

- 25 May 2018
- 12 September 2018
- 31 January 2019
- 25 April 2019 - Sithandile Ngxanga from US (Oral presentation, 1st prize)
- Genna-Leigh Schoonraad from UP (Oral presentation 2nd prize)
- Julia Kgope from TUT (Poster presentation, 1st prize)
- Portia Makhubela from UP (Poster presentation 2nd prize)

On 6 June 2018 a joined meeting between ChromSA, SAAMS and the Analytical Division was held to discuss collaboration between the Divisions to the benefit of all members where the activities of the three divisions may overlap when hyphenated analytical techniques are addressed in courses and lectures. It was agreed to improve communication between the Divisions and to collaborate on paid events to ensure good attendance and financial viability.

The AGM was held on 24 July 2018 at the Analitika Conference, Legend Golf & Safari Resort, Mookgopong, Limpopo and 23 people attended.

The Chairperson's Report for May 2017 – April 2018 was presented and accepted by the meeting. Belinda Hickman-Mosdell presented the audited financial statements and was approved by the meeting. The SACI council meeting on 2 August 2018 was attended by Wiana on behalf of ChromSA.

## **C) AWARDS:**

During Analitika 2018 four students received ChromSA sponsored prizes:

Two nominations were received for the Chromatographer of the year 2018 award.

Dr Lawrence Madikizela from Durban University of Technology (DUT) was the winner of the prestigious Chromatographer of the year 2018 award. At an event on 6 March 2019 at Durban University of Technology, Dr Madikizela gave a presentation titled: *Pharmaceuticals in water: Sample preparation and environmental monitoring*. At this event Prof. Patricia Forbes presented him with his trophy and certificate. This event was sponsored by ChromSA.

## **D) FINANCES:**

The funds held by the National ChromSA division are >R400 000 (main income source for the period was the interest on the investment). ChromSA Western Cape has funds of >R251 000.

## **E) EVENTS ORGANISED:**

Numerous events were organised for our members during the period under review:

1. ANALITIKA 2018 Conference took place from 22 – 25 July 2018 at the Legend Golf and Safari Resort, located in the Entabeni Safari Conservancy of the Waterberg. The students sponsored by ChromSA to attend Analitika 2018 were Madelien Wooding, Machel Leuchner and Portia Makhubela.
2. For the SACI Convention held in Pretoria from 5 – 7 December 2018, ChromSA sponsored Dr Hein Potgieter as the invited speaker for the Chromatography Session
3. At the information session as start of the year event on 31 January 2019 in the Auditorium of the Grain Building, Dr Gerda Botha (President) and Dr Pradish Rampersadh (CEO) from

SACNASP were the presenters. The presentation was followed by a gin tasting. The event was sponsored by ChromSA.

4. ChromSA and SACI KZN Section jointly organized the Postgraduate Research Colloquium held at Durban University of Technology (DUT) on the 6th of March 2019. Approximately 120 guests attended the event from various institutions that included University of KwaZulu-Natal (UKZN), DUT, University of Zululand, Mangosuthu University of Technology (MUT) and various KZN industries. The guest speaker was Professor Matthew Nindi, from the University of South Africa. His talk was titled "*The Journey of Mass Spectrometry to a Marriage with Chromatography*".

28 postgraduate students presented their research findings by way of posters. 7 oral presentations in all chemistry disciplines were done by PhD students from various KZN universities. Best student presentations awards included cash prizes courtesy of the Royal Society of Chemistry (North Section), SACI, ChromSA, LECO and DUT.

At the event, Professor P Forbes as a representative of ChromSA, awarded Dr Lawrence Madikizela with the prestigious Chromatographer of the Year Award for 2018.

#### **F) FUTURE EVENTS:**

- Advanced GC-MS Course presented by Dr Peter Gorst-Allman, 16 – 17 July 2019 in Pretoria
- ChromSAAMS proposed date - early in 2020.

#### **G) CONCLUDING COMMENTS:**

A special word of appreciation to the ChromSA committee members for their dedication and hard work and all the members who regularly attend our events, thank you for your support. We also want to express our sincere appreciation to our generous sponsors for their contributions during the year.

**Wiana Louw**  
**Chairperson, ChromSA**

### **ENVIROMENTAL CHEMISTRY**

The Department of Environmental, Water & Earth Sciences, Faculty of Science, Tshwane University of Technology, participated in the 2019 National Science Week organized by the Department of Science & Technology. The theme of the National Science Week was "Facing the harsh reality of climate change."



The activities that took place in the Science auditorium of Faculty of Science, TUT was inform of public lectures (Please see attached programme below) delivered to undergraduate, postgraduate and



staff in the Faculty of Science on 29 and 30th July 2019 (Photo of the audience during registration and lecture at Faculty of Science auditorium). My presentation was on Mitigation and Adaptation (Please see attached below)



Participants during the registration



Audience at the Science Auditorium

Although the public lecture was focused on climate change, however, the year 2019 of The Periodic Table was also celebrated. On 2nd August, talk on basic issues on climate change was delivered to primary school pupils in Johannesburg.



**Prof OJ Okonkwo**  
**Chair Environmental Chemistry**

### **PHYSICAL CHEMISTRY**

Unfortunately, the Physical Chemistry Division has been inactive for a number of years. Plans, however, are afoot to revitalize this important Division of the Institute. We invite all members who would be willing to serve on the committee for this Division to contact the SACI Administrator, Mrs Laila Smith.



### **ElectrochemSA divisional report 2018-2019**

No report submitted

**Prof O Arotiba**  
**Chairperson ElectrochemSA**

#### **INORGANIC CHEMISTRY**

Nothing to report

**Prof TJ Egan**  
**Chairperson Inorganic Chemistry**

#### **INDUSTRIAL CHEMISTRY**

The membership of the division continues to hover around the three hundred mark with a growing number of these members becoming professional chemists. We have a good relationship with SAQA and I regularly attend the professional body forum. I also sit on the Board of the Chemical Industries Education and Training Authority (CHIETA) and attend meetings of the professional society forum of the Institute of Directors. Some notable discussions have seen the development of a charter, code of conduct and risks that our institute could face in maintaining its viability. CHIETA is currently revising a booklet on careers in the chemical industry and I have had a preliminary meeting with the publishers.

**Dr M Booth**  
**Chairperson Industrial Chemistry**

#### **MOLECULAR MODELLING**

The annual meeting of the Molecular Modelling Special Interest Group (SIG) was held at the annual CHPC meeting on 6 December 2019 (15:30 -16:30) in Meeting room 11 of the Century Conference Centre, Cape Town.

The following issues were addressed:

1. Prof. Jeanet Conradie of UFS was thanked for her willingness to assist in compiling the program for the one day SIG seminar, where various researchers and postgraduate students presented their

research. This seminar was a continuation of the drive initiated in 2016 to give more students the opportunity to present the work they do in molecular modelling at the annual CHPC conference. This meeting was the last session of the seminar.

2. Software requirements/inventory of software available on CHPC to members of the Molecular Modelling Division was discussed.
3. An open invitation was extended to members to follow the protocol for new software to be made available on the CHPC.
4. The need for software and Linux training was raised and discussed. It was decided that a survey to determine the training needs will be compiled. Additionally, a request was made for volunteers to help with the training. This will also form part of the survey.
5. The CHPC was thanked for the workshops before and after the conference, as well as during 2018. These workshops were on the use of (access to) the CHPC and Schrodinger software available on CHPC. The members were also informed about the CHPC summer school and winter school, where basic and advanced training in Linux, is presented every year. Members of the SIG was invited to attend **2019 CHPC-NITheP Summer School**.
6. The members were reminded of that support for using the CHPC is available via the Helpdesk and CHPC Wiki. If they do not get the help they needed or do not find an answer in the Wiki, Dr Aton Lopolis or Dr Krishna Govender at CHPC could be contacted.
7. Dr Aton Lopolis and Dr Krishna Govender were thanked for all their help in 2018.
8. Members were requested to acknowledge CHPC in outputs and send copies of outputs to Dr Aton Lopolis or Dr Krishna Govender at CHPC.

**Prof CGCE van Sittert**  
**Chairperson Molecular Modelling**

## ORGANIC CHEMISTRY

### **Introduction**

The primary event for 2019 was the Frank Warren conference held between the 7th and 11th of July in the Drakensburg. With substantial assistance from Professors Charles de Koning and Till Opatz, through their joint National Research Foundation (105839), and the German Federal Ministry of Education and Research (01DG17013) grants, we were able to attract several high profile international speakers and made this year's theme 'Green Chemistry'.



**Frank Warren**  
*Conference 2019*  
Drakensberg - South Africa

The Frank Warren attracted a total of 186 delegates, of which 112 were students. Contributions were received from 22 South African public and private research institutions as well as institutions in Germany, USA, Poland, Tanzania, Switzerland, Nigeria, Austria, Scotland, Czech Republic, Cameroon, Lesotho, Zimbabwe, and England.



**Dr Kennedy Ngwira (Left) and Professor Dr Hans-Joachim Knölker (Right) delivering their respective keynote and plenary lectures.**

This year we warmly received plenary lectures from Professor Dr Till Opatz (Johannes Gutenberg-University Mainz), Professor Dr Hans-Joachim Knölker (Technische Universität Dresden), Professor Fernando Albericio (University of KwaZulu-Natal), Professor Roger Sheldon (University of the Witwatersrand), Professor B. Frank Gupton (Virginia Commonwealth University) and Professor Dr Hans-Günther Schmalz (University of Cologne). In addition, our keynote addresses were delivered by Dr Kennedy Ngwira (University of the Witwatersrand), Professor Rosalyn Klein (Rhodes University), Professor Susan Bonnet (University of the Free State), Professor Benita Barton (Nelson Mandela University), Professor Wilfred Mabusela (University of the Western Cape), Professor Gareth Arnott (University of Stellenbosch) and Professor Henok Kinfe (University of Johannesburg). The recipient of the 2019 Frank Warren Lecture was Professor Kelly Chibale from the University of Cape Town.

We received a further 18 lectures from academic colleagues as well as 16 student lectures, from all chemistry schools in the country.



**Dr Anke Wilhelm (Left) and Dr Catherine Kaschula (Right) reporting on their recent progress in the field of natural Product Research.**

### **Pricing and Funds**

Cognizant to the chronic lack of funding in South African Organic Chemistry, we endeavored to keep registration fees as low as possible, pegging our prices at 0.6 times the fees for the SACI convention

**SACI member Early Bird registration**  
**SACI member Late registration**

**R3800**  
**R4250**

<b>Non SACI member Early Bird registration</b>	<b>R4000</b>
<b>Non SACI member Late registration</b>	<b>R4500</b>
<b>Student SACI member Early Bird registration</b>	<b>R3000</b>
<b>Student SACI member Late registration</b>	<b>R3300</b>
<b>Student Non-SACI Early Bird registration</b>	<b>R3500</b>
<b>Student Non-SACI Late registration</b>	<b>R3800</b>
<b>Accompanying person Early Bird registration</b>	<b>R1200</b>
<b>Accompanying person Late registration</b>	<b>R1500</b>

Furthermore, the venue arranged significant discounts for early booking, which increased incrementally as we approached the date. Therefore, the cheapest accommodation option (five sharing a chalet, March booking) available was R2360 for the entire event and the most expensive (single person per chalet, July booking) went up to 7800 for the entire event. All booking included all meals.

We still have some registration fees outstanding, which Laila is currently following up on, but in total our account balance currently sits in excess of 90k, which given the context and the reduced fees, is a good return.



**Professor Gupton (Left) deliberating on the latest work from the Medicines for All Institute. Sandiso Ngwenya (Right) was the recipient of the best student oral award.**

### **SACI visibility**

Our journal partners at ChemMedChem and EuJOC provided an online special issue for the 2019 Frank Warren. Papers from all delegates who had published in these journals were included and have been made open access until December. Furthermore, ChemMedChem will be publishing a report focused on the history of the event and scientific elements of this year's conference.

### **Challenges for discussion.**

We had some unfortunate challenges with respect to delegates who registered and submitted abstracts, but withdrew less than 2 weeks before the event began, without payment. In all of these instances, we approached the delegates to query payment, at which time they informed us they would not be attending, rather than informing us of their situation timeously.

This is a particularly difficult situation, given funding constraints, and in some (but not all) instances, this involved student delegates. However, it is still poor behavior, and is more of a challenge with respect to repeating admin tasks, and possibly warrants discussing a SACI policy, to discourage this type of situation.





**Veterans of the Frank Warren Organic Chemistry Conference from left: Prof. Kelly Chibale\*, Prof. Neil Koorbanally, Prof. Charles de Koning\*, Prof. Susan Bonnet, Prof. Gareth Arnott, Prof. Rosalyn Klein, Prof. Fanie van Heerden\*, Prof. Rui Krause, Prof. Gert Kruger, Prof. Willem van Otterlo, Prof. Moira Bode, Prof. Ross Robinson, Prof. Cedric McClelland\* and Prof. Henok Kinfe. \*Denotes presenters of the Frank Warren Lecture**

### **Conclusion**

In conclusion, the 2019 Frank Warren conference was well received, with feedback in general being very positive. The large number of student delegates, particularly women and people from previously disadvantaged backgrounds, is an encouraging sign of growth in our field, which will hopefully translate into academic positions in the near future.

I would like to once again thank all the contributors, including the organizing committee, Charles and Till and a special thanks to Laila Smith for her substantial work, particularly leading up to the start of the conference.

The next event is scheduled for 2022, and will be hosted by the SACI north division, with Prof. Comfort Nkambule chairing the organizing committee.

**Dr C Veale**  
Organic Chemistry Division



Supporting all Mass Spectrometry activities in South Africa  
A Division of the South African Chemical Institute  
[www.saams.up.ac.za](http://www.saams.up.ac.za)



## **Report for the period July 2018 to June 2019**

### **1. Committee**

Five committee meetings were held during this period:

23 July 2018,  
11 September 2018,  
29 November 2018,  
16 April 2019,

4 June 2019.

The National committee members during this period were:

Ljiljana Marjanovic	(Chairperson)
Brendon Naicker	(Vice-chairperson)
Duncan Cromarty	(Immediate-past Chairperson)
Schalk de Kock	(Treasurer)
Egmont Rohwer	(International Representative)
Maré Linsky	(Minute Secretary)
Mike Britton	(Liaison with SACI)
Caryn Hepburn	(Vendor Industry Representative)
Dwayne Koot	(Vendor Industry Representative)
Edwin Madala	(Metabolomics Representative)
Désirée Prevoo-Franzsen	(Industry Representative)
Ireshyn Govender	(Industry Representative)
Stephan Woodborne	(Industry Representative)

Regional representatives were:

Johan Jordaan	North-West Province
Marietjie Stander	Western Cape
Gabre Kemp	Free State
Graeme Bradley	Eastern Cape

Caryn Hepburn resigned from the committee in March 2019 due to emigration.

Dwayne Koot resigned from the committee in March 2019 due to changing jobs.

The term of office of the above committee ended at the end of June 2019.

## 2. Membership

SAAMS has a membership of 424 members (as of June 2019) including students, analysts, researchers and instrument supplier representatives. The members are from different regions in Africa but also from Canada, Boston and Pakistan. Apart from chemical laboratories and institutions, members come from other disciplines such as veterinary, microbiology, pharmaceutical, food and drugs, geology, agricultural, medical etc. 156 members are registered members of SACI.

## 3. Finances

Following the closure of the SAAMS financial year on 30 April 2019, the bank statements, all associated paperwork and transaction authorizations were forward to Mr WG de Kock, who has audited the SAAMS finances for the last 20 years. Unfortunately due to a prolonged illness, Mr De Kock was unable to perform the audit and has recently advised SAAMS to secure the services of another auditor.

In the absence of SAAMS audited statements for the period ending 30 April 2019 we provide here a summary of SAAMS' financial position:

During the financial year, the SAAMS Bank balance increased from R363 052 to R372 691 at 30 April 2019.

(This included a savings account balance of *R132 626* and unit trust investments of *R240 065*)

The most significant income received during the last financial year was SAAMS' portion of the conference profit of *R21 251* from Analitika 2018, as well as interest on the investments.

Total income during the 2018-19 financial year was: **R37 468**



Expenses during the period included the cost of function venues, meetings and meals, auditing fees for the previous year, bank charges, awards to young scientists and membership to the International Mass Spectrometry Foundation.

The total of all SAAMS' expenses was: **R27 829**

SAAMS will acquire the services of a new financial auditor as soon as possible, and forward the audited statements to SACI once the audit is completed.

#### **4. Functions and activities**

##### **Annual General Meeting**

SAAMS' Annual general meeting (AGM) for 2018 took place on 23 July 2018 during the Analitika 2018 conference. The AGM for 2019 is planned to take place during October 2019. SAAMS will invite a speaker to present on a mass spectrometry related topic to incentivize members to attend. At the AGM there will be a reflection on the activities that occurred during the July 2018-June 2019 period. Future activities and suggestions from members will be part of the agenda. The new SAAMS national committee and regional representatives for the 2019-2021 term will also be formally announced at the AGM.

##### **Analitika 2018**

The Analitika 2018 Conference was held at the Legend Golf and Safari Resort in Mookhopong, Limpopo from 22 to 25 July 2018. There were a total of 178 Attendees (78 delegates, 45 students, 5 invited speakers, 45 exhibitors and 5 accompanying persons). SAAMS was represented on the organizing committee by two of our committee members, Prof Duncan Cromarty and Dr Ljiljana Marjanovic. A successful post-conference workshop on TOF-MS was jointly organized with the South African Spectroscopic Society (SASS). SAAMS awarded first and second prizes for students' oral and poster presentations where mass spectrometry was utilized.

##### **International Mass Spectrometry Conference (IMSC) 2018**

Prof Egmont Rohwer represented SAAMS when attending the IMSC 2018 event held in Florence, Italy from 26-31 August, 2018. In 1998, SAAMS was one of the founding members of the International Mass Spectrometry Foundation (IMSF) which organises the IMSC. IMSC 2020 will take place in Rio de Janeiro, Brazil. IMSC 2022 will take place in Maastricht, the Netherlands. There could be an opportunity for SAAMS to host the conference in South Africa in future. Considering that the IMSF has on several occasions sponsored international speakers for our local conferences, the annual membership fee paid to the IMSF is well-warranted. SAAMS is considering the partial sponsorship of student(s) to attend IMSC's in future and will continue to assist local students to apply for existing fellowships that are offered by the IMSF.

##### **Metabolomics / Accelerated Mass Spectrometry event**

The event was held at the i-Themba LABS at the University of the Witwatersrand on 4 October 2018. Dr Steven Lai (Waters, USA) presented a lecture on "*Mapping metabolic pathways over time*" and Dr Stephan Woodborne presented a lecture on "*Hot birds and dying crocs –adventures in stable light isotope science*". The event was sponsored by Microsep (Waters division). A similar event was held at the i-Themba LABS in Cape Town shortly afterwards.



Dr Steven Lai



Dr Stephan Woodborne

### **SAAMS / SASS LA-ICP-MS event**

An event organized jointly by SAAMS and SASS that took place at the National Laboratory Association's (NLA) labs on 19 October 2018. Presenter Dr Nick Westaway from Teledyne Cetac presented on "*Laser Ablation ICP-MS and Small volume sample introduction systems*".



Dr Nick Westaway at the NLA labs

### **SAAMS / SASS Young Mass Spectrometrists / Spectroscopist Student Symposium**

The Northern region's symposium was for the first time jointly hosted by both SAAMS and SASS. The event was held at PerkinElmer's auditorium in Midrand on 30 November 2018. A total of six postgraduate students from various tertiary institutions presented their research which utilized spectroscopy and/or mass spectrometry techniques. The Southern region's event was unfortunately cancelled due to insufficient abstracts being received. Mr Qedile Zwane, a Masters student from the University of Johannesburg, won both the Northern region event with the prize sponsored by SAAMS/SASS as well as the National prize of R 5000 which was sponsored by PerkinElmer.



**YMSS participating students**



**Judges from SAAMS and SASS**



**YMSS winner Mr Qedile Zwane**

## **5. Website and Social media**

SAAMS has acquired the services of Blutotlogix to host the website domain. The website subcommittee has received the necessary training to manage and update the website as needed. The subcommittee has also decided to discontinue using the SAAMS Facebook account but will continue to use the SAAMS LinkedIn account as a means of social media communication.

## **6. General**

The SAAMS committee looks forward to organizing more mass spectrometry related activities in the year ahead and appreciates the continued support and involvement from mass spectrometry vendors. The SAAMS committee is further thanked for their time attending committee meetings and the dedication shown to all of SAAMS' endeavours.

**Brendon Naicker**  
**SAAMS Chairperson**

## ACS

### **South African Chapter of the American Chemical Society Report (July 2018-July 2019)**

#### **Ukudlala Chemistry Festival 2018--Stellenbosch**

Since securing \$3000 from the ACS in June 2018 we have hosted one ACS Chemistry Festival at the University of Stellenbosch on 3 November 2019. Attached is a report on the event.

#### **Telephonic ACS Survey on International Experiences, 17 July 2019**

Professor van Otterlo engaged with the ACS Chapter (and Student Chapter) program management by way of a telephonic conference. The delegates included Chapter leaders from the Middle East, Asia and Africa. Issues raised from the South African side were the rather high student membership fees being a barrier to the establishment of ACS Student Chapters in South Africa. In terms of positives, Prof. van Otterlo highlighted the success of ACS-supported regional conferences, based on his experience of the ACS-SACI Binational Organic Conference in Stellenbosch in 2014. It was suggested that this model could be applied to promote the impact of ACS in developing nations in terms of enabling interactions between local and American Chemists.

#### **ACS Leadership Summit, Jordan 21-24 November 2019**

Professor de Koning and Professor van Otterlo will be participating in an International Chapters Leadership Summit in Amman, Jordan from 21-24 November 2019.

#### **ACS meeting in Qatar in March 2020**

As a result of our interactions in Dubai (April 2018) with the ACS chapters in the Middle East we have been invited to participate in an ACS conference in Qatar in March 2020. Four travel fellowships have been offered for students. A copy of the email sent to Professor de Koning is shown below. How this opportunity will be utilized should be discussed at the SACI ExCo.

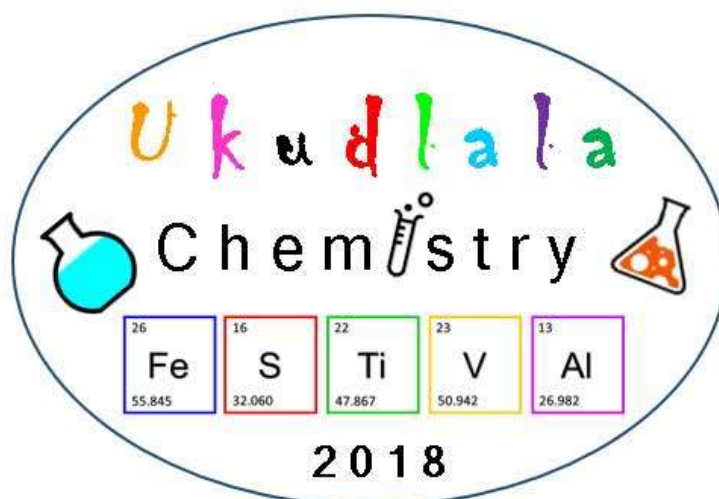
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The Qatar ACS chapter will be holding an ACS conference in Qatar **March 10-12 2020**: "ACS Research Conference: Chemistry and Chemical Engineering in MENA". The event will be attended by the ACS president (2020) Dr. Luis Echegoyen, and the keynote speaker will be Sir Fraser Stoddart, Nobel Laureate in Chemistry 2016. Prof. Peter Stang, Editor of JACS, will be also attending in addition to a number of prominent chemists and chemical engineers.

This will be the second ever American Chemical Society event outside the USA (after the Korea event). We will be offering your chapter 4 travel fellowships for your students and we would like you to spread the word about this event in your country. Our website (under construction) is [www.acs.qa](http://www.acs.qa)  
If you have questions please let us know.

Best regards,  
Hassan

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Hassan S. Bazzi, PhD, ACSF, FRSC  
Associate Dean for Research  
Executive Director, Office of Development, Engagement, and Outreach  
Professor of Chemistry  
Texas A&M University at Qatar  
P.O.Box 23874  
Doha, Qatar



### ACS – UKUDLALA CHEMISTRY FESTIVAL 2018 (Stellenbosch, South Africa)



ACS Chapter  
South Africa



UNIVERSITEIT  
iYUNIVESITHI  
STELLENBOSCH  
UNIVERSITY

100  
1918 · 2018

**Date:** Saturday, 3 November 2018

**Time:** 08h00 – 14h00

**Venue:** Department of Chemistry and Polymer Science, Stellenbosch University, Stellenbosch

On the morning of the 3<sup>rd</sup> November, 85 very excited students from **Kylemore Secondary High School** were bussed in from the town of Kylemore (between Stellenbosch and Franschhoek) to attend the very first **ACS Ukudlala Chemistry Festival** in the Department of Chemistry and Polymer Science on the Stellenbosch University (SU) campus. “**Ukudlala**” means “to play” in Zulu and our intention was that the learners playfully engage with the idea that chemistry is “all around us” through hands-on experiments using house-hold chemicals. **15 postgraduate volunteers** and 5 members from the department were on hand to give the youngsters, all in grade 9 (14-15 years of age), a wonderful hands-on experience in terms of the magic of household chemistry.

After the students had enjoyed a periodic table donut and a fruit juice (see photos at the end), the day started with a series of short motivational lectures:

- Welcome by the Head-of-department, **Prof. Peter Mallon** (and why chemistry is a great subject to study in terms of a career)
- Welcome by South African ACS Chapter head, **Prof. Charles de Koning** from University of the Witwatersrand, Johannesburg
- Welcome by **Ms Ntsiki Langa** from the faculty of Science at SU (and who brought along small gifts for the scholars)
- A “lab safety” talk by **Mr Jabu Lukhele** from the first year laboratory in the department
- A “prelab” talk by **Dr Rehana Malgas-Enus** and a brief discussion on the “culinary” (food) chemistry that awaited the scholars after their laboratory experience by **Prof. Willem van Otterlo**.



The students were then split into teams and accompanied by volunteers to perform the following **hands-on experiments**:

1. Elephant Toothpaste with yeast
2. Red Cabbage Indicator – with Lemon Juice, Vinegar, Bicarb, Bleach
3. Acid Breath - Red Cabbage Indicator – Bicarb + Diaper Magic
4. Density Rainbow

All experiments were prepared with household chemicals as advised by the ACS and it can be reported that fun was had by all! (see photos at end...) Students were provided with laboratory coats as some of the colourants utilized could be damaging to their uniforms.

Finally, near lunchtime, the students were treated to a range of food from the **food stations** listed below to ensure that they did not go home hungry. Again, postgraduate volunteers were on hand to explain the chemistry behind the food provided and to give the scholars an opportunity to ask questions. The following food stalls were set up by the volunteers in the quad of the Department's de Beers building:

1. Braai (BBQ) Stall (Maillard Reaction)
2. Drinks Stall (Carbonation, Freezing Point Depression, Charles Law)
3. Popcorn Stall (Chemistry of popcorn)
4. Candy Stall (Cotton Candy Chemistry)

At 13h30, after filling in a short **"post-festival" questionnaire** the students were returned to their buses and safely returned to their school. The results of this questionnaire were very positive with the students overwhelmingly indicating that the ACS Ukudlala festival had made an impact on them in terms of their perception of the subject of chemistry! (please see end of report for more information gleaned from this questionnaire).

In terms of the **US\$ 3000** gratefully received from the ACS, all was spent on materials and consumables for the event. In terms of sponsorship, unfortunately the very tight time line between receiving the "go-ahead" for the event and the fact that the event had to be held before December 2018 (which resulted in a clash with the university year-end) it was not possible to find a co-sponsor in terms of funding. Fortunately, the Department of Chemistry and Polymer Science kindly provided the venue (lecture hall and laboratory space), the Faculty of Science provided "science nerd badges" and career-information booklets and a number of department staff gave of their free time to assist in the preparation of the event and on the day itself. The following staff members from the Department are acknowledged and thanked for their input: Dr Rehana Malgas-Enus, Mr Jabu Lukhele, Mr Shafiek Mohamed, Mr Raymond Willemse, Mr Maxwell Wakens, Mrs Debbie Issacs, Mrs Noluntu Ntwana, Mrs Brenda Chordnum, Mrs Mariana Snyman, Prof. Peter Mallon). The following list of postgraduate volunteers were the stars of the event – they were gratefully acknowledged with a certificate signed by Dr Malgas-Enus (as departmental outreach head) and Profs de Koning and Mallon. The postgraduate volunteers were: Mr E Maggott, Mr T Snayer, Mr J. October, Mr C. Jospeh, Mr K.

Steyn, Ms L. Jordaan, Mr J. Hay, Mr A Mafaune, Mr K. Gould, Mr K. Visagie, Ms L. Brits, Mr J Hensberg, Ms M Strydom, Ms M Matthews & A Hamann (photographer).

#### Budget outline:

Item	Rands	
Transport	160	7500
Labcoats	40	8400
Stickers	200	390
Braai and Drinks	200	12100
Popcorn and Candy	200	4845
Donuts	200	3200
Grocery List + dry ice		4800
		<b>41235</b>
	at R14 to \$	<b>\$2,945</b>

#### Feedback from scholars:

78 ACS feedback forms were handed in at the end of the festival and every response received indicated that the scholars had "learnt something new or interesting" during the event! In addition, the adjectives "very interesting" (71%) and "interesting" (27%) were the most frequently used descriptors of the event. It was also rewarding to see that 97% of the respondents indicated that they would be sharing their exciting chemistry experience with others in their community!

#### Selected feedback:

I have learned so much about chemistry today. At first I thought it was boring, but I found it very interesting. I would like to attend this more often.

There should be more students to help during the experiments, because you have to wait till the (first) student is done

The event was awesome. It did not feel like an event, it felt like a fun class.

Today's event was really amazing. I would like to do more of these classes. I like chemistry a lot.

I find Science very interesting and today it really inspired me in having something to do with Science in the future. This event was awesome, I really myself while doing the experiments.

I have found the event very interesting because I have learned many things and I want to become a successful scientist.

It was very interesting and I learned to be careful when you work in a lab.

I really enjoyed it and I will definitely choose Chemistry as a subject.



The day was very much fun. I would like to do it again. In the future I would consider to go to university.

I think the staff/assistants are very friendly and very helpful.

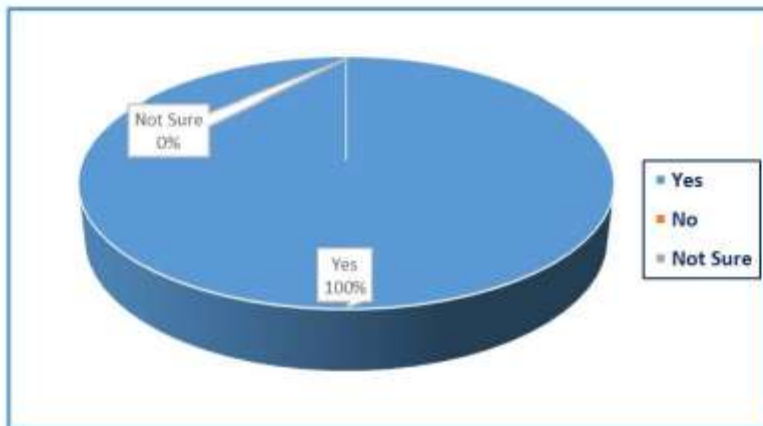
All I could say is "Wow!" Everything was great. I would definitely change my subjects. I give it a 100 out of 100!

It was amazing and memorable. Awesome - keep it up.

**Responses:**

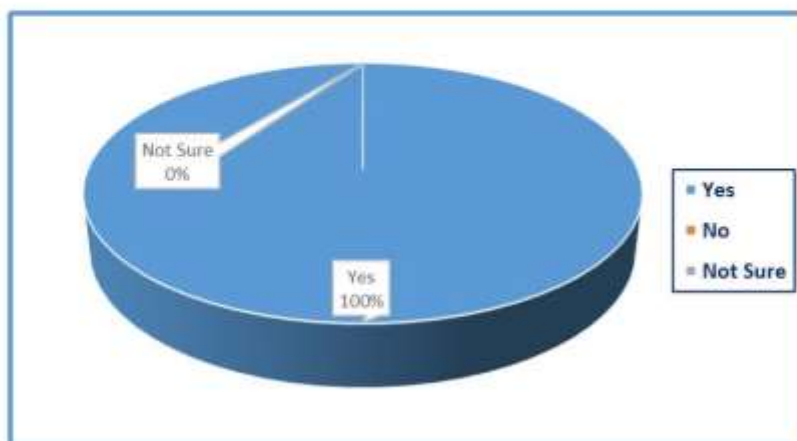
1. Did you learn something new or interesting in today's event?

Yes	No	Not Sure
78	0	0



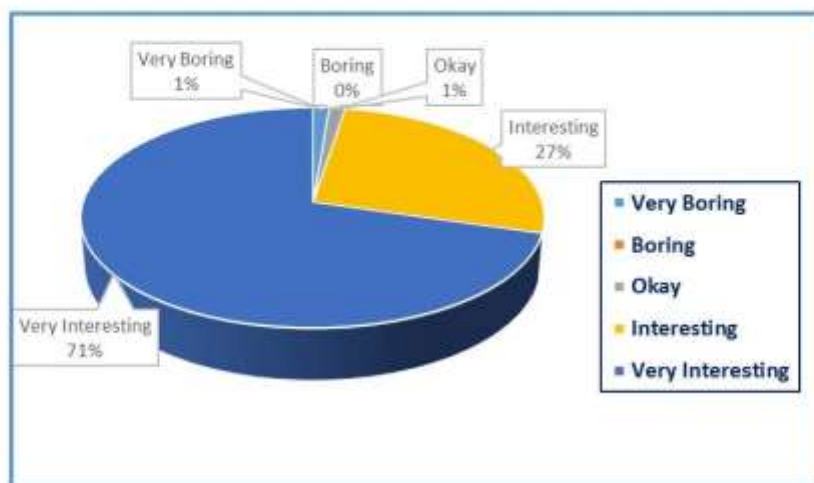
2. Would you like to attend another event like this in the future?

Yes	No	Maybe
75	1	2



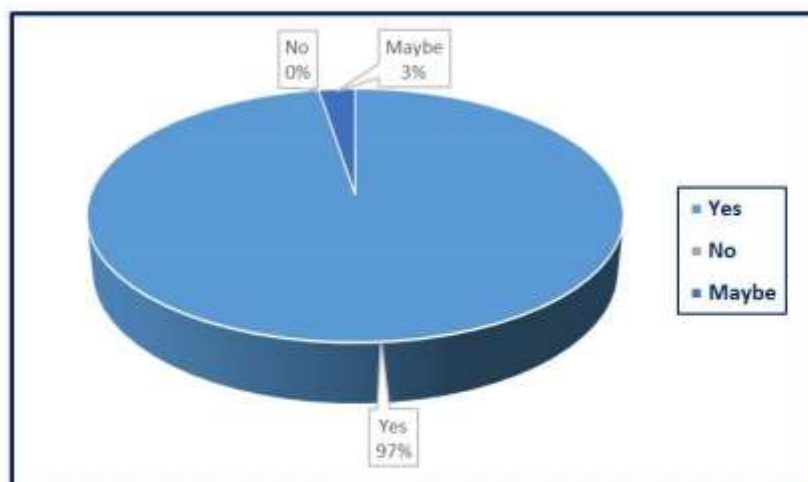
3. I think chemistry is: (choose one)

Very Boring	Boring	Okay	Interesting	Very Interesting
1	0	1	21	55



4. When I get home, I will share what I have learned about chemistry with other people.

Yes	No	Maybe
76	0	2



Selected photos of event:









Thanks to ACS, staff and volunteers from Department of Chemistry and Polymer Science, Stellenbosch University, Dr Rehana Malgas-Enus of SUNCOI, Stellenbosch University & Prof. Charles de Koning (University of Witwatersrand, Johannesburg).

Report compiled by Prof. Willem van Otterlo, Department of Chemistry and Polymer Science, Stellenbosch University



**Prof CB de Koning**  
Chairperson ACS





The Green Chemistry Division has taken part in three events this year, and its members continue to have an impact in a range of contexts across the sector.

### ***SACI National Convention***

The GCD supported the Convention in December 2018, and used the opportunity to make the award for the best Green Chemistry paper published by a South African researcher in 2018. Vineet Jeena, from UKZN, was awarded a keynote talk at the Convention for his paper “*Copper-catalyzed aerobic benzylic sp<sup>3</sup> C–H oxidation mediated synthesis of 2, 4, 5-trisubstituted imidazoles via a domino multi-component reaction*” (Green Chemistry 19 (24), 5841-5845). The Convention highlighted the growing importance of Green Chemistry principles in all areas of research with several speakers and poster presentations showcasing achievements in this area.

### ***NCPC-SA Facilitators workshop***

The GCD continued to develop its relationship with the National Cleaner Production Centre at the CSIR, sending two delegates to the facilitators workshop on 29<sup>th</sup> October – 2<sup>nd</sup> November 2018 (Pretoria). This collaboration seeks to enhance the incorporation of Green Chemistry principles into the Industrial chemical sector in Southern Africa and South Africa in particular. The SACI student member that we sponsored gave a presentation of Green Chemistry principles at the Eastern Cape Region Career and Innovation event held on 23<sup>rd</sup> April this year. This was an opportunity to demonstrate environmental and resource stewardship within the chemical industry.

### ***Frank Warren Organic Chemistry Conference 2019***

Our thanks go to Charles de Koning and the organizers of the Frank Warren Conference (especially Clinton Veale) for a well organized conference where green chemistry was given a substantial platform. The international speakers, in particular, did much to demonstrate the many opportunities for employing green chemistry in the area of organic synthesis.

### ***AGM***

Leading up to the National Convention an email was sent to all the listed members announcing the AGM to take place during the convention. This included a call for nominees to replace the incumbent committee, and to change the structure of the committee. Unfortunately the AGM was poorly attended and no nominees were forthcoming in the month which followed. It is hoped that a strategy will be found within the next twelve months to hold a necessary election process.

**Dr Rosalyn Klein**  
**Chairperson Green Chemistry**





### **Committee**

Chairperson: Dr Liezel van der Merwe (UP)

Immediate Past Chairperson/Website: Dr. Kobus Wagener (Necsa)

Treasurer: Dr Isbé van der Westhuizen (UP)

Secretary: Dr Liezel van der Merwe (UP)

Communication and membership: Mr. Benni Vilakazi (Necsa)

Instrument supplier representative: Vacant

Regional Representatives: Prof. Chris Woolard, Mr Ross Burnham, Dr. Andrew Pienaar

### **Events 2018-2019**

Apart from ThermSA's participation in Analitika 2018, no other events were held during this time. Our plenary speaker at the Analitika conference was Prof Walter Focke from the University of Pretoria who presented an influential talk entitled "The power of thermal analysis in applied materials research". We are busy organising a hands-on training event covering aspects related to basic instrumental theory and practical application knowledge in the fields of Thermal Analysis and Rheology, in collaboration with SASOR (Southern African Society of Rheology). This event is scheduled to take place on 16 August 2019 at the CSIR National Centre for Nano-structured Materials.

### **Knowledge dissemination**

Newsletters or e-mail communication are sent to members and interested parties to ensure that local events such as local and international conferences, webinars and training sessions are communicated, thereby further developing the field of Thermal Analysis in South Africa.

### **International Ties**

We have membership as an affiliated society of ICTAC (International Confederation of Thermal Analysis and Calorimetry) and were represented at the ICTAC Council meeting and ESTAC conference held in Brasov, Romania from 26 to 30 August 2018.

### **Membership**

ThermSA membership has been steadily increasing over the past 4 years. There are currently 74 members of SACI who are members of ThermSA. In addition there are 4 members who are not SACI members.

### **Dr Liezel van der Merwe**

Chairperson: ThermSA

### **Dr Kobus Wagener**

Immediate Past Chairperson

## **SACI STUDENT REPORT**

I wish to begin by acknowledging all the SACI Executive, Council, Divisional and Sectional committee members, for your invaluable efforts and hard work, especially in safeguarding the re-establishment of our SACI Student's member committee, thus providing a better platform for participation of students and enhancing the Institute sustainability. The revival of the student committee is a well-accepted and appreciated strategic notion across SACI student members. This year, for the first time, SACI student members celebrate the privilege of their representation in the 2019 SACI Council meeting, a key component of the Institute. For me, as the SACI National Student Representative, it has been a great year working with all SACI students across South Africa (SA) while ensuring the revival and functionality of our role in all SACI Sections. Meeting some of the SACI students in person, through various SACI programmes on the calendar, was an interesting experience whereby students opened up in sharing their hopes and dreams of our great chemistry community. The biggest platform was the 2018 SACI National Convention, in particular, the opportunity I had in presenting the Student Chapter, which was very well received and with all sections well represented. Thank you Mr SACI President for being around throughout the meeting, and providing clarity and advice to the various queries raised. It was clear that one major issue was around SACI awareness, SACI students are not well-informed of SACI activities and the benefits of being a student member. This indicates that there is a need to have a couple of awareness campaign programs to enlighten the young members about the Institute. Also the establishment of Facebook or Tweeter accounts, among other platforms, was also supported for various communications and awareness campaign. In short, from the students' perspective, it was a fruitful meeting that addressed some concerns raised and provided constructive measures and strategies as a way forward for 2019 and onwards. For sure, there is still a lot to be done, but such meetings, and other avenues too, should be helpful and encouraged as we continue to shape the future of the student representation and prospects.

In 2019, it important to note that Sectional and Institutional Representatives were appointed and since they have been working together to form an effective team with increased visibility as a student committee. All appointed student representatives had their SACI membership fee remission, as a benefit, and were also encouraged to actively participate at meetings and activities of their respective sections and institutions.

Also, this year, SACI students were given an opportunity, which was inspiring too, to nominate awardees for postgraduate awards, a communication was sent through emails via respective student representative. This process raised the awareness and benefits of being a SACI student member and the expectations needed to be an awardee.

One other key achievement was the increased communication, which was quite effective throughout the year as the Student Representatives were continuously following up with their student members and involvement in various programs. My appeal, as the outgoing National Students Representative and on behalf of the student committee, to the members of the Council, is to continue supporting the student structure and its participation in various SACI and its related events. One possible way could be to include Sectional Student Representative in Local Organising Committees (LOC) for the various SACI hosted and affiliated conferences or workshops.

In short, once again, I would like to take this opportunity to thank everyone involved in the success of the reestablishment of the student's committee. As an individual, this leadership role has been a great platform for my personal development, which I immensely appreciate. Also, apart from my gratitude to the SACI Executive and Council, I wish to thank my fellow students and sectional representatives for the profound support I have received from each one of them. Hence, as my term in office expires, I want to express my sincere gratitude for the opportunity to serve as the SACI National Student Representative, it was a memorable

Thank you all.

**Kudzai Mugadza**  
National SACI Student Representative

## FINANCIAL REPORT

### SOUTH AFRICAN CHEMICAL INSTITUTE FINANCES FOR THE PERIOD 1 MAY 2018 TO 30 April 2019

	2017-2018	2018-2019	Y/Y-1	2018-2019	2018-2019
Income	Actual	Actual	%	Budget	Actual/budget
Membership Fees	R 528 110	R 568 541	108%	R 566 000	106%
PrChemSA annual and once off registration Fees	R 29 450	R 31 360	106%	R 31 500	100%
Journal Income	R 4 166	R 3 674	88%	-	not budgeted for
IUPAC income	R 11 000	R 19 790	180%	R 11 000	180%
Unallocated Income	R -	R 29 085		R -	included in fees
Merchandise/Ties and Scarfs	R 8 750	R 600	7%	R 8 750	7%
Admin donation from conferences	R 10 000	R 25 000	250%	R 10 000	250%
Advertising Income	R 19 700	R 9 000	46%	R 20 000	45%
Critical Skills Evaluation	R 6 600	R -		R 6 600	
Interest on Marketlink account	R 15 737	R 5 513	35%	R 16 000	34%
<b>Total Income</b>	<b>R 633 513</b>	<b>R 692 563</b>	<b>109,3%</b>	<b>R 669 850</b>	<b>103,4%</b>
Expenditure	Actual	Actual	%	Budget	Budget
Journal Expenses	R 61 823	R 59 123	96%	R 68 000	87%
Bank Charges	R 9 666	R 11 849	123%	R 10 410	114%
Computer/Software/Pastel/Internet	R 22 654	R 21 638	96%	R 25 000	87%
SAJC online submissions	R 11 070	R 17 590	159%	R 12 600	140%
Courier and Postage	R 3 541	R 2 578	73%	R 2 000	129%
Entertainment Expenses (Council/Exco Functions)	R 13 977	R 9 962	71%	R 14 700	68%
General Expenses	R 6 382	R 4 505	71%	R 7 000	64%
Printing, Stationery and Photocopying	R 9 450	R 6 500	69%	R 10 000	65%
Salaries and Wages incl. Wits 25% Administration Fee	R 357 349	R 392 457	110%	R 375 000	105%
Telephone and Fax	R 6 291	R 3 999	64%	R 6 600	61%
Teleconference - Chorus Call	R 7 055	R 2 846	40%	R 3 500	81%
Travel and Accommodation	R 17 187	R 29 558	172%	R 18 000	164%
Presidents Travel	R -	R -		R -	
Subscriptions (IUPAC/FASC/EBSCO/NSTF)	R 9 841	R 27 547	280%	R 10 500	262%
Auditors	R 11 525	R 12 850	111%	R 12 000	107%
Medal Prize Money and Minting of Medals	R 28 489	R 23 050	111%	R 30 000	77%
Medal Functions/Donations	R -	R 8 689		R -	not budgeted for
Rental	R 20 000	R 18 000	90%	R 22 540	80%
Merchandise	R 12 916	R 27 600	214%	R 10 000	276%
PrChemSA Administration	R 25 900	R 13 520	52%	R 27 500	49%
Telkom Wifi	R 376	R 4 247	1129%	R 4 500	94%
Certificates		R 8 984			not budgeted for
Critical skills evaluation Prof Breet	R 1 400	R 700	50%	R -	
<b>Total Expenditure</b>	<b>R 636 890</b>	<b>R 707 790</b>	<b>111,1%</b>	<b>R 669 850</b>	<b>105,7%</b>
Item	Actual	Actual		Budget	Budget
Total Income	R 633 513	R 692 563	109%	R 669 850	103%
Total Expenditure	R 636 890	R 707 790	111%	R 669 850	106%
<b>Balance</b>	<b>-R 3 377</b>	<b>-R 15 227</b>		<b>R -</b>	<b>-2,3%</b>

### SOUTH AFRICAN CHEMICAL INSTITUTE FINANCES FOR THE PERIOD 1 MAY 2018 TO 30 April 2019

SACI Admin Account						
Wits Admin account			R	48 810		
Standard Bank Market Link Account			R	163 799		
Standard Bank Cheque account			R	184 507		
Total			R	397 116		
Central Fund Account	Opening Balance		Closing Balance	Difference		
Investec Equity Fund	R 469 347		R 489 359,48	R 20 013		
Old Mutual	R 405 638		R 407 191,00	R 1 553		
SIM General Equity Fund	R 409 977		R 431 818,74	R 21 842		
Stanlib Property Income Fund	R 482 602		R 427 117,68	-R 55 484		
Total	R 1 767 563		R 1 755 486,90	-R 12 076		
Total Interest on Investments			-R	12 076		
Seed Monies and Loans			Total	Total		
ACS Division			R	10 000		
ICCE 2020			R	200 000		
Central			R	13 568		
Total			R	223 568		
Profit Derived from Conferences		2016-2017	2017 - 2018		2018 - 2019	2018 - 2019
Total		R 25 865	R 27 382		R 107 800	R 107 800
Divisional Accounts not managed by SACI		Opening Balance			Closing Balance	Change
ChromSA		R	663 153		R 477 637	-R 185 516
Western Cape		R	4 900		R 4 900,00	-
SAAMS		R	371 628		R 372 691	R 1 064
Divisions' Market Link Accounts managed by SACI		Opening Balance			Closing Balance	Closing Balance
Inorganic Chemistry		R	180 313		R 187 035	R 187 035
Computational Chemistry		R	5 372		R 5 490	R 5 490
Chemical Education		R	1 156		R 1 156	R 1 156
Eastern Cape		R	116 592		R 107 802	R 107 802
Analytical Chemistry		R	262 435		R 258 407	R 258 407
Organic Chemistry		R	175 917		R 183 790	R 183 790
Kwazulu Natal		R	143 197		R 133 181	R 133 181
Electrochemistry		R	54 597		R 124 628	R 124 628
North		R	32 900		R 32 317	R 32 317
Central		R	6 891		R 117	R 117
Green Chemistry		R	87 498		R 50 215	R 50 215
ACS Chapter		R	5 009		R 5 120	R 5 120
ThermSA		R	27 238		R 64 945	R 64 945
KZN Womans Functions		R	-		R 23 832	R 23 832
Western Cape		R	120 057		R 117 449	R 117 449
Total		R	1 219 175		R 1 295 482	R 1 295 482

### SACI Financial report 2018/19

The full audited SACI accounts are available on request. The tables attached provide a summary of the Institute's financial affairs for 1st May 2018 to 30th April 2019.

SACI finances operate on two levels. Firstly, SACI uses the Central Fund for day-to-day operations and these are the figures shown in the Excel sheets included in this report. Secondly, SACI looks after (but has no direct control over) the Divisional accounts and these are included in the full audited accounts hence the difference in figures.

In terms of day-to-day operations, SACI had a very good financial year.

Total income for the year was 3.4% (R23K) above budget and 9.3% (R59K) higher than the previous year. This was due to an 8% increase in membership income plus an increase in conference administration fees.

Expenditure was kept well under control finishing 5.7% (R38K) above budget and 11.1% (R71K) higher than the previous financial year. However, this expenditure included R27600 for IYPT T-shirts which were purchased for sale in the new financial year, recovering the cost and bringing in additional revenue.

Overall the Institute made a small operating loss of R15227 (2.3% of budget) which would have been a small profit of R12373 (1.8% of budget) without the T-shirt purchase.

Investments are reviewed on a regular basis. Market conditions worsened during the period under review resulting in a small loss of R12K. Other investments options e.g. transferring some of the money to a Marketlink account are under consideration.

Conference income was R107800 which accrued from Analytika 2018, NanoAfrica 2018 and Electrochemistry 2018. This does not include income from the 2018 SACI Convention, the accounts for which had not been finalised by 30th April 2019.

In terms of the Budget for 2019/20, the income is expected to rise by 8.3%. This is made up of an average increase in membership fees of 5.4% plus expected revenue from IYPT T-shirt sales.

Expenditure is budgeted to increase by 14.1% but this includes R100000 allocated for IYPT activities by the local sections (R25K per section for approved IYPT projects). This will result in an overall loss of R57.5K (an actual profit of R42.5K excluding the IYPT grants).

In terms of the overall audited SACI accounts, expenditure exceeded income by R61K but this was largely driven by total Division expenditure exceeding income by R171K.

I thus believe that SACI is in a very good financial position going forward.

Thanks must go Laila Smith for her day to day handling of the receipts and payments and the general handling of the SACI accounts. Without her, the SACI accounts would not be kept up to date and in such good order.



### South African Chemical Institute proposed budget for 2019/20

	2018-2019	2019-2020	Budget 2019/20
Income	Actual	Budget	/Actual 2018/19
Membership Fees	R 568 541	R 630 000	5,4%
PrChemSA annual and once off registration Fees	R 31 360	R 33 000	5,2%
Journal Income	R 3 674	R -	
IUPAC income	R 19 790	R 21 000	6,1%
Unallocated Income	R 29 085	R -	
Merchandise/Ties and Scarfs/T shirts	R 600	R 40 000	6567%
Admin donation from conferences	R 25 000	R 10 000	-60%
Advertising Income	R 9 000	R 10 000	11%
Critical Skills Evaluation	R -		
Interest on Marketlink account	R 5 513	R 6 000	9%
<b>Total Income</b>	<b>R 692 563</b>	<b>R 750 000</b>	<b>8,3%</b>
Expenditure	Actual	Budget	Budget 2019/20
			/Actual 2018/19
Journal Expenses	R 59 123	R 62 000	4,9%
Bank Charges	R 11 849	R 12 500	5,5%
Computer/Software/Pastel/Internet	R 21 638	R 23 000	6,3%
SAJC online submissions	R 17 590	R 18 500	5,2%
Courier and Postage	R 2 578	R 2 000	-22,4%
Entertainment Expenses (Council/Exco Functions)	R 9 962	R 10 500	5,4%
General Expenses	R 4 505	R 5 000	11,0%
Printing, Stationery and Photocopying	R 6 500	R 6 800	4,6%
Salaries and Wages incl. Wits 25% Administration Fee	R 392 457	R 425 000	8,3%
Telephone and Fax	R 3 999	R 4 200	5,0%
Teleconference - Chorus Call	R 2 846	R 3 000	5,4%
Travel and Accommodation	R 29 558	R 20 000	-32,3%
Presidents Travel	R -	R -	
Subscriptions (IUPAC/FASC/EBSCO/NSTF)	R 27 547	R 29 000	5,3%
Auditors	R 12 850	R 13 500	5,1%
Medal Prize Money and Minting of Medals	R 23 050	R 25 000	8,5%
Medal Functions/Donations	R 8 689	R -	-100,0%
Rental	R 18 000	R 18 000	0,0%
Merchandise	R 27 600	R -	-100,0%
PrChemSA Administration	R 13 520	R 15 000	10,9%
Telkom Wifi	R 4 247	R 4 500	6,0%
IYPT activities	R -	R 100 000	
Certificates	R 8 984	R 10 000	11,3%
Critical skills evaluation Prof Breet	R 700	R -	-100,0%
<b>Total Expenditure</b>	<b>R 707 790</b>	<b>R 807 500</b>	<b>14,1%</b>
Item	Actual	Budget	Budget/actual
Total Income	R 692 563	R 750 000	8,3%
Total Expenditure	R 707 790	R 807 500	14,1%
<b>Balance</b>	<b>-R 15 227</b>	<b>-R 57 500</b>	

THE SOUTH AFRICAN CHEMICAL INSTITUTE

STATEMENT OF FINANCIAL POSITION AS AT 30 APRIL 2019

	Note	2019 R	2018 R
<b>ASSETS</b>			
<b>Non-current assets</b>		2,846,790	2,998,546
Property, plant and equipment	2	12,448	14,217
Funds held	3	855,228	1,039,681
Loans to divisions	4	223,568	177,084
Other financial assets	5	1,755,546	1,767,564
<b>Current assets</b>		1,820,099	1,679,637
Inventory	6	86,458	58,858
Trade and other receivables		22,223	12,340
Cash at bank, on hand and on call	7	1,711,418	1,608,439
<b>Total assets</b>		<u>4,666,889</u>	<u>4,678,183</u>
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>		4,582,653	4,643,581
Capital		594,820	594,820
Accumulated funds		3,987,833	4,048,761
<b>Current liabilities</b>		84,236	34,602
Trade and other payables		61,151	11,517
RSC Workshop funds held		23,085	23,085
<b>Total funds and liabilities</b>		<u>4,666,889</u>	<u>4,678,183</u>

**THE SOUTH AFRICAN CHEMICAL INSTITUTE**

**STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR ENDED  
30 APRIL 2019**

	Note	2019 R	2018 R
<b>Revenue</b>		601,720	566,310
<b>Cost of sales</b>		-	(6,560)
<b>Gross profit</b>		601,720	559,750
<b>Other income</b>		350,307	431,099
Admin donation from conferences		25,000	10,000
Advertising		9,000	19,700
Division income		146,881	200,745
Division income - Profit conferences		-	82,148
Interest received - SACI		38,062	66,073
Journal income		3,674	4,166
Other income	8	19,790	11,000
Profit on investments		-	9,884
Profit received from conferences		107,800	27,383
Sundry income		100	-
		952,027	990,849
<b>Expenditure</b>		1,012,955	928,820
Accounting fees		1,650	1,625
Awards		23,050	28,489
Bank charges - Divisions		122	693
Bank charges - SACI		11,727	8,982
Banners		-	12,916
Computer expenses		21,638	22,654
Courier and postage		2,578	3,541
Depreciation		1,769	2,050
Discount allowed		1,191	187
Division expenses		318,037	289,068
Donation UIPAC		8,689	-
Employee costs		392,457	357,349
Entertainment and refreshments		9,962	13,977
General expenses		4,505	6,382
Journal expenses		59,123	61,823
Loss on investments		12,017	-
Membership certificates		8,984	-
PrChemSA administration		13,520	25,900
Printing and stationery		6,500	9,450
Rent paid		18,000	20,000
Reviewer's remuneration - fees		10,950	10,890
SAJC submission		17,590	11,070
Skill evaluations		700	1,400
Subscriptions		27,547	9,841
Telephone and fax		11,091	13,346
Travel - local		29,558	17,187
<b>(Deficit) / surplus for the year</b>		<b>(60,928)</b>	<b>62,029</b>

**Dr Ian Bratt**  
**Executive Treasurer**

## **PRESIDENTS OF THE INSTITUTE**

1916-1917	J S Jamieson	1958-1959	H A E McKenzie
1917-1918	R B Denison	1959-1960	G W Perold
1918-1919	J A Wilkinson	1960-1961	F L Warren
1919-1920	J McCrae	1961-1962	W S Rapson
1920-1921	J Lewis	1962-1963	F L Clark
1921-1922	G H Stanley	1963-1964	E F C H Rohwer
1922-1923	J Gray	1964-1965	L J le Roux
1923-1924	H H Green	1965-1966	R E Robinson
1924-1925	J Moir	1966-1967	V Pretorius
1925-1926	H H Dodds	1967-1968	M Lamchen
1926-1927	J A Wilkinson	1968-1969	M Mrost
1927-1928	B de C Marchand	1969-1970	P C Carman
1928-1929	C C Frye	1970-1971	P R C Cooke
1929-1930	M Rindl	1971-1972	J F Preston
1930-1931	F W Fox	1972-1973	F E Malherbe
1931-1932	A Harding Kloot	1973-1974	C F Garbers
1932-1933	H R Raikes	1974-1975	N Stutterheim
1933-1934	B van der Riet	1975-1976	S Goodman
1934-1935	J B Robertson	1976-1978	V C O Schuler
1935-1936	St C O Sinclair	1978-1979	D E A Rivett
1936-1937	J A McLachlan	1979-1980	A Goosen
1937-1938	T D Hall	1980-1981	R R Arndt
1938-1939	F J de Villiers	1981-1982	R O Perry
1939-1940	H J van Eck	1982-1984	C J H Schutte
1940-1941	F G Braithwaite	1984-1986	P Bloom
1941-1942	J P van Zyl	1986-1988	J R Bull
1942-1943	W F Barker	1988-1990	J D Bradley
1943-1944	P Kamerman	1990-1992	A M Heyns
1944-1945	J E Worsdale	1992-1994	M D Booth
1945-1946	T J Wilken Jorden	1994-1996	T M Letcher
1946-1947	E Taberner	1996-1998	E L J Breet
1947-1948	H L de Waal	1998-2000	C J Rademeyer
1948-1949	W H Dyson	2000-2001	B Rae
1949-1950	H J Koch	2001-2003	G E Jackson
1950-1951	P v d R Copeman	2003-2005	E Meintjies
1951-1952	L F Addis Smith	2005-2007	T A Ford
1952-1953	A J Petrick	2007-2009	N J Coville
1953-1954	L D C Bok	2009-2011	I R Green
1954-1955	S S Israelstam	2011-2013	J Darkwa
1955-1956	F W Hayes	2013-2015	S Lotz
1956-1957	F Hawke	2015-2017	B Martincigh
1957-1958	A L Abbot	2017-2019	V Nyamori

## **RECIPIENTS OF THE GOLD MEDAL OF THE INSTITUTE**

1970	L H Ahrens	1993	R J Haines
1971	P C Carman	1994	A M Heyns
1972	S G Shuttleworth	1995	S E Drewes
1973	W S Rapson	1996	D Ferreira
1974	P E Rousseau	1997	N J Coville
1975	V Pretorius	1998	W McGill
1976	C van der Merwe Brink	1999	T M Letcher
1977	D G Roux	2000	M E Brown
1978	G J Stander	2001	J P Michael
1979	R E Robinson	2002	H G Raubenheimer
1980	C F Garbers	2003	L Nassimbeni
1981	P R Enslin	2004	B Burger
1982	GW Perold	2005	No Award
1983	J C A Boeyens	2006	T A Ford
1984	J R Bull	2007	P Kaye
1985	A M Stephen	2008	No Award
1986	M Peisach	2009	M R Caira
1987	P S Steyn	2010	No Award
1988	C W Holzapfel	2011	C J H Schutte
1989	No Award	2012	T Nyokong
1990	J G H du Preez	2013	B Klumperman
1991	No Award	2014	L J Barbour
1992	A Goosen	2015	H Marques
		2016	TJ Egan
		2017	H Pasch
		2018	K Chibale



## **RECIPIENTS OF THE RAIKES MEDAL**

1961	P C Haaroff	1989	H M Marques
1962	A J de Koning	1990	C A Strydom
1963	No Award	1991	M D Adams
1964	No Award	1992	J H Potgieter
1965	No Award	1993	G H Verdoorn
1966	S E Drewes	1994	N V Jarvis
1967	W Robb	1995	M Raynor
1968	C H J Shutte	1996	No Award
1969	R A Basson	1997	No Award
1970	No Award	1998	No Award
1971	No Award	1999	K J Naidoo
1972	D P Botes	2000	M H S Gradwell
1973	R J Haines	2001	M J Mphahlele
1974	P S Steyn	2002	R I Stefan
1975	No Award	2003	No Award
1976	R D Hancock	2004	W A L van Otterlo
1977	G V Fazakerley	2005	No Award
1978	R van Eldik	2006	No Award
1979	K De Haas	2007	J R Zeevaart
1980	G J Mc Dougall	2008	O Q Munro
1981	T V Ashworth	2009	R Meijboom
1982	R L Paul	2010	M Fernandes
1983	No Award	2011	G Smith
1984	No Award	2012	H Tutu
1985	No Award	2013	E Strauss
1986	M O Albers	2014	A Lemmerer
1987	No Award	2015	AJ de Villiers
1988	No Award	2016	ZR Tshentu
		2017	DI Bezuidenhout
		2018	No Award

## **RECIPIENTS OF THE AECI MEDAL**

1961	P R Enslin, L A Anderson and W T de Kock	1979	G M L Cragg
1962	F J Joubert and T Haylett	1980	J C A Boeyens
1963	O A Swanepoel	1981	E Singleton
1964	V Pretorius and P C van Berge	1982	C Pohlandt
1965	M Peisach and C O Poole	1983	J M Koekemoer and G J Lourens
1966	C v d M Brink, W Nel, G H J Rall, J C Weitz and K G R Pachler	1984	No Award
1967	M B Hanley, S C Churms and E C Leisegang	1985	R M A von Wandruszka
1968	G W Perold and H K L Hunt	1986	E Singleton
1969	J Turkstra, G B Behrens and W J de Wet	1987	A E Watson
1970	W J Engelbrecht and M J de Vries	1988	C W Holzapfel
1971	J G H du Preez	1989	T A Ford
1972	J A van den Berg	1990	E Singleton
1973	J C A Boeyens	1991	P P Coetzee
1974	T W Steele	1992	J R Bull
1975	A Goosen	1993	A Amman
1976	P C Carman	1994	N J Coville
1977	E F C Rohwer and J J Cruywagen	1995	J F van Staden
1978	F E W Strelow	1996	P P T Kaye
		1997	T A Ford
		1998	J M Anderson

## **RECIPIENTS OF THE MERCK MEDAL**

2000	J F van Staden	2008	P P Coetzee
2001	G H P Roos	2009	C W van der Westhuizen
2002	N J Coville	2010	N J Coville
2003	J C A Boeyens	2011	R H Simoyi
2004	I Cukrowski	2012	D A Katskov
2005	B Staskun	2013	D D N'Da
2006	H M Marques	2014	J Conradie
2007	J J Pienaar	2015	NJ Coville
		2016	BS Martincigh
		2017	BS Martincigh
		2018	PG Ndungu

## **RECIPIENTS OF THE HENDRIK VAN ECK MEDAL**

1983	A E Rupert	2000	No Award
1984	N Stutterheim	2001	No Award
1985	No Award	2002	P S Steyn
1986	No Award	2003	No Award
1987	No Award	2004	No Award
1988	No Award	2005	No Award
1989	No Award	2006	No Award
1990	No Award	2007	No Award
1991	C F Garbers	2008	No Award
1992	No Award	2009	No Award
1993	F E Malherbe	2010	No Award
1994	No Award	2011	No Award
1995	No Award	2012	No Award
1996	R R Arndt	2013	No Award
1997	No Award		
1998	No Award		
1999	No Award		

## **RECIPIENTS OF THE INDUSTRIAL CHEMISTRY MEDAL**

1961	G E Mapstone	2003	No Award
1962	No Award	2004	K McIntosh
1963	No Award	2005	No Award
1994	A Geertsema	2006	No Award
1995	F Fisher	2007	No Award
1996	No Award	2008	No Award
1997	No Award	2009	No Award
1998	No Award	2010	No Award
1999	No Award	2011	J Dixon
2000	N Ravenscroft	2012	No Award
2001	T Grimmbacher	2013	No Award
2002	No Award		

## **RECIPIENTS OF THE MISCHA MROST (ANALYTICA) PRIZE**

1977	J M Pratt	1996	G J Stander
1978	I R Leith	1997	J H Potgieter
1979	H J Hattingh	1998	No Award
1980	P Theron	1999	P Apps
1981	J Zlotnick	2000	N J Coville
1982	G L Moore	2001	E W Neuse
1983	M F Dutton	2002	No Award
1984	No Award	2003	S S Potgieter
1985	R Osborne	2004	No Award
1986	G L Moore	2005	P W Lotz
1987	M A B Pougnet and M A E Wandt	2006	No Award
1988	S Parris	2007	No Award
1989	T M Letcher	2008	No Award
1990	M A B Pougnet	2009	No Award
1991	C Pohlandt-Watson and E A Jones	2010	No Award
1992	D Gravett and L Salter	2011	No Award
1993	No Award	2012	No Award
1994	No Award	2013	No Award
1995	M J Laing		

## **RECIPIENTS OF SASOL POST-GRADUATE MEDAL**

- 1994 J J Nair, O Q Munro, P G Mountford, M H S Gradwell  
1995 B G Taverner, J L Scott, S L Roberts, P Mason  
1997 J A Ferreira, J du Toit, V Sewram, D Bessarabov, A Horne  
1998 M A Hearshaw, W A L van Otterlo, J J C Erasmus, H A Mahomed, J J C Grove  
1999 H van Rensburg, M A Fernandes, G Cripps  
2000 S Otto, A Rousseau  
2001 K Kaschula, W van Rensburg, K Blann  
2002 H de Bod, M Onani, C B Perry, D Webber  
2003 L Mpholle, K Barnes, C Gray  
2004 A Landman, E E Mmutlane, T le Roex, M Shezi  
2005 C Pelly, N Govender  
2006 A Lemmerer, J N Zimba, M Lawton  
2007 G Morgans  
2008 S D Mhlanga, K de Villiers, S Hadebe, M Shaw  
2009 S Pelly, C B Barnett, G A Boyle, T I Nkambule  
2010 D Bezuidenhout, E Nxumalo  
2011 W Motswainyana, O Onajole, D Cruishcank, A Shaikjee, R Wamsley  
2012 T Chetty, CF Zipp D, Kuter  
2013 D Ondigo, M Maubane, N Njuguna, H Wahl  
2014 A S Ogunlaja, MM Johnson, KJ Wicht, C Obuah

## **RECIPIENTS OF SACI POST-GRADUATE MEDAL**

- 2015 BP Camden Grover, WF Petersen, MN Pillay  
2016 MW Dlamini, I Rogers, K Gopaul  
2017 G Kleinhans, EM Njogu, CI Nkanga, TN Phaahlamohlaka, J Okombo  
2018 E Mombeshora, S Ncube, S Sayed, A van der Westhuyzen



## **RECIPIENTS OF THE JAMES MOIR MEDAL**

- 1999 J P K Reynhardt, A J de Villiers, R Best, K Thornell, S V Goodall, K Blann, U Naidoo, N I Harmse, D P de Carcenac, R Cock, J C Nel
- 2000 N Grootboom, E Lamprecht, Amaluleke, D Rautenbach, G L Natrass, A M Castille, W Gerber
- 2001 J van Rensburg, T Le Roex, X K Peter, J Taljaard, K Lobb, G Venter, A van Aswegen
- 2002 L Greyvenstein, D Patten, Y Baijnath, T Raasch, K Stern, M du Toit, S Botha, O Horwood
- 2003 V Buchanan, E T Borkum, E Erasmus, P Reddy, P Franklyn
- 2004 W Barnard, R Gessner, A Gordon, Z Hall, G Lloyd, L Rota
- 2005 D I Bezuidenhout, C Booyjzsen, J Coetzee, R Janse van Vuuren, Y Koen, C A Laing, E Marais, S Mohamed, M S Mokhadinyana, N Moodley, J Paraskevopoulos, T S Pentz
- 2006 T Paquet, I Rootman, N Rose, P D R Kptze, S Travis, N Miti, D Duma, V A Patterson, M van Rhyn
- 2007 L Loots, M Adendorf, S Botha, MW Smith, P Skillington, N E Hendricks, T Hughes, B Waldron, M N Kay, D J Brankin
- 2008 SA Herbert, KE Mason-Jones, N Silwana, C Reynolds, JI du Toit, A Manival, A Cullen, TR Madihlaba, B Truscott.
- 2009 E Hanekom, W Xu, S M Jing, C F Zipp, Y Nortje, K J Gillham, B Dzepina, P Nyamukamba, A C Conibear, A Ilchev, P I Tshoke, K Potgieter, B Simpson
- 2010 C Eley, A Falch, I Grobler, K Hadje Georgiou, N Jijana, P Khalili, R Koen, L Komarsamy, H Maritz, W Petersen, A Pholosi, CA Renison, BK Sebogisi, P Sobantu, S Thompson
- 2011 M Lephoto, H Mungondori, R Pretorius, C Rassie, S Robinson, T Pieterse, A Sayed, K Wicht, M Ungerer
- 2012 L van der Westhuizen, L van der Wat, BB Davies, B Camden-Smith, J Coetzee, MB Ismail, T Gunther, JM Taylor, TN Phaahlamohlaka, I Clifford
- 2013 N Steyn, N Mvumvu, SF Douman, R Hartzenberg, L Dralle, EH Kamanga, FM Amombo Noa, AJK Kupeta, M Mohale
- 2014 E Mamedov, S Raghunath, I Strydom, PL Pohl, M Dunn, T Saywood, NA Dare, JBML Smit, S Chohan
- 2015 HH Shiri, R Chitongo, OA Makgae, S De Kock, R Mente, S Magqazolo, RM Taylor, J Ferreira, M Visser, DE Chetty, S Pakade
- 2016 D Botes Myalo, B Steytler, KB Govender, J Leygonie, A Vicatos, J Lombard, L Swartzberg, AL Battison, K Nyamayaro, M Chizema
- 2017 V Tokoyi, NR Molupe, B Dzingwe, D Rademeyer, VD Ramasamy, S Lovisa, W Duminy, J Botha, SE Orango Adewinogo, B Shaku, OMC Matlhaku, V Vermaak, GS Motloun, BL Davids, NI Richardson, T Cooper
- 2018 SL Bewana, L Parrott, S Jama, Z Nqakala, T Sithuba, A Welsh, JJ Moser, JL Slabbert, F Jagot, AL Henning, VL Porter, T Naidoo, U Ndagano

## **RECIPIENTS OF THE CHEMICAL EDUCATION MEDAL**

1993	M J Laing
1994	J Elsworth
1995	M Selvaratnam
1996	JD Bradley
1997	GC Gerrans
1998	No Award
1999	S J Nel
2000	P Huddle
2001	No Award
2002	MS Rollnick
2003	No Award
2004	B Davidowitz
2005	No Award
2006	G O M Onwu
2007	M White
2008	M Potgieter
2009	GV Green
2010	E Steenberg
2011	P Loyson
2012	J D Sewry
2013	No Award
2014	P Forbes
2015	E Mavhunga
2016	H Drummond
2017	LA Pilcher
2018	K Mathabathe

## **RECIPIENTS OF THE SASOL**

### **INNOVATOR OF THE YEAR AWARD**

2002	No Award
2003	No Award
2004	M J Green
2005	I Smith
2006	No Award
2007	No Award
2008	No Award
2009	No Award
2010	No Award
2011	No Award
2012	No Award
2013	L J Barbour
2014	O Munro
2015	LB Klumperman
2016 – 2018	No Award

